FY05 as of July 2004

Installation Action Plan

for

Fort Leavenworth Kansas

printed on 30% post-consumer material paper

Installation Action Plan

For

Fort Leavenworth

Kansas

FY05 as of June 2004

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total, multi-year, restoration program for an installation. The plan will define Installation Restoration Program (IRP) requirements and propose a comprehensive approach and associated costs to conduct future investigations and remedial actions at each Solid Waste Management Unit (SWMU) at the installation and other areas of concern.

In an effort to coordinate planning information between the IRP manager, Army Environmental Center (AEC), installations, executing agencies, regulatory agencies, and the public, an IAP has been completed for Fort Leavenworth. The IAP is used to track requirements, schedules and tenative budgets for all major Army installation restoration programs.

All site specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change during the document's annual review. Under current project funding, all remedies will be in place at the Fort Leavenworth by the end of 2009.

The following agencies contributed to the formulation and completion of this Installation Action Plan:

ARCADIS

Ecology & Environment, Inc.

Fort Leavenworth

Engineering and Environment, Inc.

Kansas Department of Health & Environment (KDHE)

US Army Corps of Engineers

US Army Environmental Center

US Environmental Protection Agency (EPA) Region VII

Acronyms & Abbreviations

AEDB-R	Atmy Environmental Database - Restoration
AOC	Area of Concern
AST	Aboveground Storage Tank
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
CAMU	Corrective Action Management Unit
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response Compensation and Liability Act (1980)
CMI	Corrective Measures Investigation
CMI(O)	Operation of Corrective Measures Implementation
COC	Contaminants of Concern
Cr	Chromium
CRP	Community Relations Plan
CS	Confirmatory Sampling
CTC	Cost-to-Complete
cy	cubic yards
DA	Department of Army
DES	Corrective Measures Implementation Design
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program (now called ER,A)
DD	Decision Document
DOD	Department of Defense
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office, Branch of Defense Logistics Agency
DSERTS	Defense Site Environmental Restoration Tracking System (noe AEDB-R)
ECAS	Army Environmental Compliance Assessment
EPA	(United States) Environmental Protection Agency
EPR	Environmental Program Requirements
ER,A	Environmental Restoration, Army (formerly called DERA)
FAWOC	Federal Ambient Water Quality Criteria
FAWQC	Federal Ambient Water Quality Criteria
FFA	Federal Facility Agreement
FFSRA	Federal Facility Site Remediation Agreement
FS	Feasibility Study
ft	foot
ft^2	square feet
FTL	AEDB-R Code for Fort Leavenworth
FY	Fiscal Year, Federal Government (1 September to 31 October)
gal	gallon
GFPR	Guaranteed Fixed-Price Remediation
gpd	gallons per day
GW	Groundwater
HRS	Hazard Ranking System
IAP	Installation Action Plan
IRA	Interim Remedial Action
IROD	Interim Record of Decision
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
JP-4	Jet Propellant Number 4, 60% gasoline and 40% kerosene
JP-8	Jet Propellant Number 8, 100% kerosene

Acronyms & Abbreviations

K	$1,000
KAL	Kansas Action Levels
KCD	Kansas City Missouri Office, Corps of Engineers
KDHE	Kansas Department of Health and Environment
kg	kilograms
KIRG	Kansas Interim Remedial Guidelines for Contaminated Soils
LTM	Long-Term Monitoring
LTO	Long-Term Operation
MCL	Maximum Contaminant Level
mg	miligrams
MON	Monitoring
MW	Monitoring Well
NE	Not Evaluated
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OB/OD	Open Burning / Open Detonation
OMA	Operations Maintenance Account
OU	Operable Unit
O&M	Operation & Maintenance
PAH	Poly Aromatic Hydrocarbons
PA/SI	Preliminary Assessment/Site Investigation
PBC	Performance Based Contracting
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil & Lubricants
POM	Program Objective Memorandum (budget)
PP	Proposed Plan
RPG	Preliminary Remediation Goals
PX	Post Exchange (Retail Sales and Service Centers)
PY	prior year
RA	Remedial Action
RA(O)	Remedial Action (Operation)
RAB	Restoration Advisory Board
RBCs	Risk-Based Concentrations
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal
RFA	RCRA Facility Assessment
RFI/CMS	RCRA Facility Investigation/Corrective Measures Study
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy in Place
RMIS	Restoration Management Information System
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
RSK	Risk-Based Standards of Kansas
SARA	Superfund Amendments and Reauthorization Act
SCAPS	Site Characterization and Analysis Penetrometer System

Acronyms & Abbreviations

SI	Site Inspection
SoB	Statement of Basis
SR	Supervision of Remediation
SVOC	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
S&A	Supervision and Administration
TAL	Target Analyte List
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
TRADOC	US Army Training and Doctrine Command
ug/l	microgram per liter
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Center (formerly called USATHMA)
USAEHA	United States Army Environmental Hygiene Agency (now called CHPPM)
USAEHA	United States Army Environmental Hygiene Agency, Aberdeen Proving Ground, Maryland
USATHMA	United States Army Toxic and Hazardous Material Agency (now called AEC)
USCHPPM	United States Center for Health Promotion and Preventive Medicine (formerly called USAEHA)
USDB	United States Disiplinary Barracks
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
yr	year

CERCLA AND RCRA ACRONYM CONVERSIONS

CERCLA		**RCRA**
PA Preliminary Assessment	=	**RFA** RCRA Facility Assessement
SI Site Investigation	=	**CS** Confirmation Study
RI/FS Remedial Investigation/ Feasibility Study	=	**RFI/CMS** RCRA Facility Investigation/Corrective Measures Study
RD Remedial Design	=	**CMD** Corrective Measures Design
RA(C) Remedial Action (Construction)	=	**CMI(C)** Corrective Measures Implementation (Construction)
RA(O) Remedial Action (Operations)	=	**CMI(O)** Corrective Measures Implementation (Operation)

Summary

STATUS: RCRA-permitted, confirmed soil, surface water, and groundwater contamination

NUMBER OF AEDB-R SITES:
71
26 Active
45 Response Complete

DIFFERENT AEDB-R SITE TYPES:

3 Contaminated Buildings	3 Surface Disposal Areas
3 Firing Ranges	5 Incinerators
9 Landfills	1 Above Ground Storage Tank
8 Storage Areas	1 Soil Contamination after Tank Removal
4 Surface Runoffs	2 Surface Impoundment/Lagoons
4 Spill Site Areas	3 Sewage Treatment Plants
8 Washracks	15 Underground Storage Tanks
1 Waste Treatment Plant	

CONTAMINANTS OF CONCERN: Metals, SVOCs, Pesticides, Herbicides, VOCs, PAHs, PCBs, TPH

MEDIA OF CONCERN: Surface Water, Groundwater, Soil, and Sediment

COMPLETED REM/IRA/RA:
RA - UST removals (1990-1994) (Non-ER,A funds)
RA - FTL-45 (Non-ER,A funds)
RA - FTL-64 (Non-ER,A funds)
IRA - UST removals FTL-15, 16, 17, 18, 39, 50 & 51

CURRENT IRP PHASES: GFPR

PROJECTED IRP PHASES: GFPR

IDENTIFIED POSSIBLE REM/IRA/RA: TBD

DURATION:

Year of IRP Inception:	1988
Year of IRP Completion (excluding LTM):	2009

Installation Information

LOCALE:

Fort Leavenworth is a 5,634-acre facility located on the west bank of the Missouri River. The official name of the facility is the United States Army Combined Arms Center and Fort Leavenworth. Fort Leavenworth serves as the home for the Command and General Staff College, National Simulation Center, TRADOC Analysis Center and the United States Disciplinary Barracks. The installation was established in 1827 and is the oldest continuously operating Army installation west of the Mississippi River. The installation is located in northern Leavenworth County Kansas, approximately 25 miles northwest of the edge of the Kansas City metropolitan area, which has a combined population of about 1.5 million people.

REGULATORY PARTICIPATION:

FEDERAL: Environmental Protection Agency (EPA), RCRA, EPA Region VII
STATE: Bureau of Environmental Remediation Kansas Department of Health and Environment

REGULATORY STATUS:

RCRA Part 2 Permit: Fort Leavenworth operates under a RCRA Permit with a Corrective Measures Section. All active sites listed in this document are covered by the permit.

RAB STATUS:

Fort Leavenworth does not have a Restoration Advisory Board

MAJOR CHANGES TO IAP FROM PREVIOUS YEAR (2004):

The major change in the Installation Action Plan in the last year has been the award of the Guaranteed Fixed Price Remediation (GFPR) contract to ARCADIS G&M. There are 19 sites included in the GFPR contract; they are: FTL 02 through 08, 10, 11, 15, 20, 24, 30, 57, 60, 65, and 69 through 71. The sites currently contracted are FTL- 02, 03, 04, 05, 06, 07,10, 11, 15, 20, 24, 30, 60, 65, 70 and 71.

Installation Description

INSTALLATION HISTORY

Fort Leavenworth is located on the west bank of the Missouri River about 25 miles northwest of downtown Kansas City, Missouri. The Missouri River marks the northern and eastern boundary of the Fort. The city of Leavenworth is located on the south boundary of the Fort. On the southwest side of the installation is the United States Penitentiary Leavenworth that was built by prisoners from the Fort. Open farmland is to the west.

- Fort Leavenworth was established by Colonel Henry Leavenworth, his officers and men of the 3rd Infantry Regiment in 1827. Its mission was to administer the land to the west belonging to the Indian Tribes, maintain the peace between the Indian Tribes and to protect travelers along the Santa Fe and Oregon Trails.

- The Fort was the outfitting post for the troops fighting the war with Mexico in 1848.

- During the Civil War, Fort Leavenworth was an important depot as well as the major base of operations for Union Forces in the West.

- Centrally located, Fort Leavenworth became the primary depot for supplies destined for western military posts. It was the primary base for two of the four cavalry regiments that fought in the Indian conflicts.

- In 1875, the U.S. Disciplinary Barracks was established to house military prisoners. Today it is the only long-term maximum-security confinement facility in the Department of Defense.

- The School of Application for Cavalry and Infantry, which later evolved into the Command and General Staff College, was established by General William T. Sherman in 1881. Graduates of the school excelled in planning complex Expeditionary Forces Operations in World War I.

- In 1946, the school's name changed to the Command and General Staff College.

- In 1959, Bell Hall was constructed to house the college.

- Fort Leavenworth continues to be on the leading edge of the Army's future. The community's pride in its history of service to the Army and the nation is matched by its readiness to meet the challenges of the future.

MISSION

Fort Leavenworth supports the U.S. Army Training and Doctrine Command (TRADOC) whose primary mission on the Fort is the training of officers for staff work. This is done at the Command and General Staff College. The other large mission is the long-term confinement of military prisoners in the United States Disciplinary Barracks. Other significant activities on the Fort include coordination of combined arms collective training and the National Simulation Center.

STATISTICS

The following statistics were compiled by the Fort Leavenworth Public Affairs Office.

Size of Fort: 5,634 acres

Fort's Population:	Total Military: 3,226
	Family Members on Fort: 4,111
	USDB Inmates: 449
	Total Civilian Employment: 2,292
Financial Impact:	Military Payroll: $157,271,843
	Civilian Employees: $16,285,510
	FY02 Expenditures, excluding payrolls: $217,880,900

Number of Annual Visitors (estimated): 93,543

Contamination Assessment

There are 71 sites currently being tracked by the Fort Leavenworth Restoration Program. These solid waste management sites include: old landfills, contaminated sites, contaminated buildings, incinerators and other activities that have or had the potential for a significant impact on the environment. This section discusses the sites having a significant impact on the environment and future installation activities.

The site of primary concern on Fort Leavenworth is FTL-10 - Burn Pit, which is on the RCRA Permit. This site was used for firefighter training for many years. Used solvents were dumped on the ground and ignited. The surface area of this site is not large; however the soil below it has significant contamination with an associated groundwater contamination below it. The groundwater contamination is of major concern, since Fort Leavenworth and other communities use the aquifer for drinking water. The extent of the groundwater contamination appears to be limited in nature and does not appear to pose an imminent threat to the users of this water. Due to the groundwater problems, this site has the highest priority of all the sites on the installation. The current investigations have located the plume and have generally determined the extent of the soil contamination. Future activities will include defining the profile and extent of the plume.

Landfills make up almost half of the active sites on the installation. This includes both sanitary and construction debris landfills. Remediation of the landfills will require the majority of the restoration program funds and efforts. All the landfills are part of the RCRA Permit Corrective Measures Section. Seven of these landfills are Restoration Program funded with another one (FTL-09) being Operations and Maintenance Account funded. These landfills all share a general concern of some contamination at the site and the need to properly close them. Remedial Investigations have been completed on all these landfills. Most sites have been characterized sufficiently to allow the production of Corrective Measures Studies when appropriate. In a few cases, Engineering Evaluations and Cost Analysis documents have been produced.

There are several sites that have not been investigated. These sites are: FTL-20, Septic Tank at the USDB Greenhouse. FTL-70, Fuel Oil Leak at the United States Disciplinary Barracks. FTL-71, McClellan Avenue Maintenance Shop Site.

There are several sites that are identified in the RCRA Permit, but are not eligible for Defense Environmental Restoration Program funding. These sites will be addressed using Operations and Maintenance Account funds. They are: FTL-09, Closed Active Sanitary Landfill; FTL-12, Used Oil Tank AST Near Bldg 305; FTL-13, Used Oil Tank UST Near Bldg 689; FTL-23, Mineral Settling Lagoons; FTL-63, DRMO Scrap Yard; FTL-66, Fifth Artillery Road Firing Range; FTL-68, Weed Control Area, City of Leavenworth, Airport Operations.

Sites where Interim Remedial Actions or some investigation has been done include: FTL-30, Past Pesticide Area, USDB Farm, Near Bldg 413 and FTL-60, Stripping Area South of USDB Greenhouse.

Previous Studies

	Title	AUTHOR	DATE
1	Water Quality Monitoring consulting NO. 24-L06-75/76	USAEHA	September-75
2	Landfill Design and Permit Application	USAEHA	July-80
3	Installation Assessment of Combined Arms Center Report No. 327	Environmental Science and Engineering, Inc.	March-83
4	Evaluation of Solid Waste Disposal Practices and Facilities June 4-8, 1984	USAEHA	November-84
5	Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units	US Army Environmental Hygiene Agency	February-87
6	Specification for Conforming Storage Facility at DRMO	Bibb and Associates, Inc.	March-88
7	Site Sampling Plan for Old Burn Pit Area Site FTL-10	Hunter/ESE, Inc.	May-89
8	Site Health and Safety Plan Old Burn Pit Area, Site FTL-10 Contract NO. DACW41-87-D-0151	Hunter/ESE, Inc.	May-89
9	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report	O'Brien & Gere Engineers, Inc.	January-90
10	Contamination Evaluation of Specific Solid Waste Management Units - Site Specific Sampling/Analysis/Quality Control/Quality Assurance Plan	O'Brien & Gere Engineers, Inc.	January-90
11	Contamination Evaluation of Specific Solid Waste Management Units -Site Safety and Health Plan	O'Brien & Gere Engineers, Inc.	January-90
12	Contamination Evaluation of Specific Solid Waste Management Units - Exhibit II Laboratory Report Volume 1 of 5 & Volume 2 of 5	O'Brien & Gere Engineers, Inc.	January-90
13	Contamination Evaluation of Specific Solid Waste Management Units - Exhibit II Laboratory Report Volume 3 of 5 & Volume 4 of 5	O'Brien & Gere Engineers, Inc.	January-90
14	Contamination Evaluation of Specific Solid Waste Management Units - Exhibit II Laboratory Report Volume 5 of 5 Additional Samples, Volume 1 of 1	O'Brien & Gere Engineers, Inc.	January-90
15	Contamination Evaluation of Specific Solid Waste Management Units - Appendicies Exhibit I	O'Brien & Gere Engineers, Inc.	January-90
16	Sherman Army Airfield Solid Waste Management Unit 8 Field Sampling Plan	B & V Waste Science and Technology Corporation	May-90
17	Transmitting Solid Waste Management Unit 8 Contamination Assessment	B & V Waste Science and Technology Corporation	September-90
18	Transmitting Solid Waste Management Unit 8 Contamination Assessment	B & V Waste Science and Technology Corporation	October-90
19	Volume I Task 1 Report - Preliminary Site Investigation Hazardous Waste Site Remedial Investigation U.S.P.	Geosystems Engineering & George Butler Associates	August-91
20	Golf Course Maintenance Building No. 84 Hazardous Materials Building USDB Greenhouse Buildings No. 398 & 399 Construction Solicitation and Specifications	Army Corps of Engineers Kansas City District	August-92
21	(Draft) Sanitary Landfill Closure Plan Sherman Site	Army Corps of Engineers Kansas City District	December-92
22	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Volume 1 of 7 Engineering Report, Exhibit I - Site Surveys	O'Brien & Gere Engineers, Inc.	January-93
23	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Vol 2 of 7 Exhibit II - Lab Report: Southwest Lab of Oklahoma, Inc. Vol 1 of 3	O'Brien & Gere Engineers, Inc.	January-93

Previous Studies

	Title	AUTHOR	DATE
24	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Vol 3 of 7 Exhibit II - Lab Report: Southwest Lab of Oklahoma, Inc. Vol 2 of 3	O'Brien & Gere Engineers, Inc.	January-93
25	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Vol 3 of 7 Exhibit II - Lab Report: Southwest Lab of Oklahoma, Inc. Vol 3 of 3	O'Brien & Gere Engineers, Inc.	January-93
26	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Vol 5 of 7 Exhibit III - Lab Report: OBG Lab, Inc. Vol 1 of 2 and Volume 2 of 2	O'Brien & Gere Engineers, Inc.	January-93
27	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Vol 6 of 7 Exhibit IV - Quality Assurance Lab Report: MRD Lab	O'Brien & Gere Engineers, Inc.	January-93
28	Contamination Evaluation of Specific Solid Waste Management Units - Draft Report Vol 7 of 7 Appendicies	O'Brien & Gere Engineers, Inc.	January-93
29	Sanitary Landfill Closure Plan Sherman Site	Army Corps of Engineers Kansas City District	February-93
30	Fort Leavenworth Sanitary Landfill Closure Sherman Site	Army Corps of Engineers Kansas City District	May-93
31	Sanitary Landfill Closure Plan Sherman Site	Army Corps of Engineers Kansas City District	May-93
32	Sanitary Landfill Closure Construction Solicitation and Specifications	Army Corps of Engineers Kansas City District	June-93
33	Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volume 1 of 7 Engineering Report, Exhibit I - Site Surveys	O'Brien & Gere Engineers, Inc.	January-94
34	Contamination Evaluation of Specific Solid Waste Management Units - Final Report Vol 2 of 7 Exhibit II - Lab Report: Southwest Lab of Oklahoma, Inc. Vol 1 of 3	O'Brien & Gere Engineers, Inc.	January-94
35	Contamination Evaluation of Specific Solid Waste Management Units – Final Draft Report Vol 4 of 7 Exhibit II - Lab Report: Southwest Lab of Oklahoma, Inc. Vol 3 of 3	O'Brien & Gere Engineers, Inc.	January-94
36	Contamination Evaluation of Specific Solid Waste Management Units - Final Report Vol 7 of 7 Appendicies	O'Brien & Gere Engineers, Inc.	January-94
37	Environmental Operations, Inc. Project #4654 Project Close-Out Report Stoddard Solvent Tank Removal	Environmental Remediation and Consulting	February-94
38	Draft Workplans Volumes I and II Old Skeet Range	Law Engineering and Environmental Services	March-94
39	Site Safety and Health Plan Groundwater Sampling Program	Burns & McDonnell Engineers-Architects- Consultants	October-94
40	Chemical Data Acquisition Plan Groundwater Sampling Program	Burns & McDonnell Engineers-Architects- Consultants	October-94
41	Final Work Plans Volumes I & II for Contamination Evaluation for Old Skeet Range	Law Engineering and Environmental Services	October-94
42	Work Plan Removal Action Design Old Pesticide Area	Burns & McDonnell Engineers-Architects- Consultants	October-94
43	95% Design Analysis Contract NO. DACW41-94-D-9002 Removal Action Design Old Pesticide Area FY 1995	Burns & McDonnell Engineers-Architects- Consultants	January-95
44	95 Percent Design Specifications Contract NO. DACW41-94-D-9002 Removal Action Design Old Pesticide Area Fiscal Year 1995	Burns & McDonnell Engineers-Architects- Consultants	January-95

Previous Studies

	Title	AUTHOR	DATE
45	Groundwater Monitoring Report October 1994 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	April-95
46	Final Design Specifications Contract NO. DACW41-94-D-9002 Removal Action Old Pesticide Area Fiscal Year 1995	Burns & McDonnell Engineers-Architects- Consultants	May-95
47	Final Design Analysis Contract NO. DACW41-94-D-9002 Removal Action Old Pesticide Area Fiscal Year 1995	Burns & McDonnell Engineers-Architects- Consultants	May-95
48	Closure Report Building 431 U.S. Army Corps of Engineers UST Removal Fort Leavenworth, Kansas USACE Contract DACW41-93-D-0037 Delivery Order No. 0010	HDB Construction, Inc.	May-95
49	Draft Work Plan Hancock Landfill Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	November-95
50	Chemical Data Acquisition Plan for the Groundwater and Surface Water Sampling Program 1995, 1996, and 1997	Burns & McDonnell Engineers-Architects- Consultants	December-95
51	(Draft) Groundwater and Surface Water Monitoring Report December 1995 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	February-96
52	Site Assessment Work Plan for the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	March-96
53	Groundwater Potential Contamination Survey No. 38-26-0916-86	USAEHA	March-96
54	Quality Control Summary Report Groundwater and Surface Water Monitoring Report December 1995 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	April-96
55	Site Assessment Work Plan for the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	April-96
56	Work Plan Hancock Landfill Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	April-96
57	Draft Site Investigation Report Hancock Landfill	Burns & McDonnell Engineers-Architects- Consultants	August-96
58	Draft Quality Control Summary Report Hancock Landfill Volume I of II	Burns & McDonnell Engineers-Architects- Consultants	August-96
59	Draft Quality Control Summary Report Hancock Landfill Volume II of II	Burns & McDonnell Engineers-Architects- Consultants	August-96
60	Draft Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	September-96
61	Draft Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	September-96
62	Final Contamination Evaluation Report for Old Skeet Range	Law Engineering and Environmental Services	September-96
63	(Final) Groundwater and Surface Water Monitoring Report December 1995 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	September-96
64	Groundwater and Surface Water Monitoring Report October 1996 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	December-96
65	Final Site Investigation Report Hancock Landfill	Burns & McDonnell Engineers-Architects- Consultants	January-97
66	Final Quality Control Summary Report Hancock Landfill Volume I of II	Burns & McDonnell Engineers-Architects- Consultants	January-97
67	Final Quality Control Summary Report Hancock Landfill Volume II of II	Burns & McDonnell Engineers-Architects- Consultants	January-97
68	Draft Quality Control Summary Report for Phase 2 Site Investigation Report for the US Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	January-97

Previous Studies

	Title	AUTHOR	DATE
69	Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-02	Ecology and Environment, Inc.	January-97
70	Final Site Assessment Report for the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	February-97
71	Final Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks Volume I	Burns & McDonnell Engineers-Architects- Consultants	February-97
72	Final Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks Volume II	Burns & McDonnell Engineers-Architects- Consultants	February-97
73	Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites	Burns & McDonnell Engineers-Architects- Consultants	February-97
74	Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) 6 Sites Attachment A Field Sampling Plan	Burns & McDonnell Engineers-Architects- Consultants	February-97
75	Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment C Site Safety and Health Plan	Burns & McDonnell Engineers-Architects- Consultants	February-97
76	Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) 6 Sites Attachment D Quality Control Plan	Burns & McDonnell Engineers-Architects- Consultants	February-97
77	Radiological Survey Work Plan Hancock Landfill	NAVSEADET RASO	July-97
78	Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment B Quality Assurance Project Plan	Burns & McDonnell Engineers-Architects- Consultants	August-97
79	Draft Site Investigation Report for FTL-65 Pond and Drainages	Burns & McDonnell Engineers-Architects- Consultants	August-97
80	Quality Control Summary Report for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Background Samples	Burns & McDonnell Engineers-Architects- Consultants	September-97
81	Radiological Survey Report Hancock Landfill	NAVSEADET RASO	October-97
82	Draft Quality Control Plan for Phase 2 Site Investigation at the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	October-97
83	Draft Addendum for the Phase 2 Site Investigation at the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	October-97
84	Quality Control Plan Annual Monitoring Program	Burns & McDonnell Engineers-Architects- Consultants	November-97
85	Site Health and Safety Plan Annual Monitoring Program	Burns & McDonnell Engineers-Architects- Consultants	November-97
86	Draft Interim Report Engineering Evaluation/Cost Analysis for FTL-11 Closed Firefighting Practice Area	Burns & McDonnell Engineers-Architects- Consultants	November-97
87	Chemical Data Acquisition Plan Addendum for the 1997, 98 and 99 Groundwater and Surface Water Sampling Program	Burns & McDonnell Engineers-Architects- Consultants	February-98
88	Final Work Plan Addendum for the Phase 2 Site Investigation at the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	February-98
89	Final Site Investigation Report for FTL-10 Closed Firefighting Practice Area	Burns & McDonnell Engineers-Architects- Consultants	February-98
90	Final Quality Control Plan for Phase 2 Site Investigation Report for the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	February-98
91	Final Draft Laboratory Investigation of Physical Separation and Chemical Extraction Treatment Alternatives for Soils Collected from the Old Skeet Range Located	Waterways Experiment Station	February-98
92	Quality Control Plan Annual Monitoring Program	Burns & McDonnell Engineers-Architects- Consultants	February-98

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	Title	AUTHOR	DATE
93	Draft Engineering Evaluation/Cost Analysis for FTL-5 Inactive Sanitary Landfill	Burns & McDonnell Engineers-Architects- Consultants	March-98
94	Draft Work Plan/Quality Assurance Project Plan/Health and Safety Plan FTL-8 Site, Inactive Sanitary/Demolition Landfill	Army Corps of Engineers Kansas City District	June-98
95	Draft Preliminary Assessment Report FTL-2 and FTL-3 Demolition Landfills	Army Corps of Engineers Kansas City District	June-98
96	Final Site Investigation Report for FTL-65 Pond and Drainages	Burns & McDonnell Engineers-Architects- Consultants	August-98
97	Draft Quality Assurance Project Plan for the DRMO Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	November-98
98	Draft Field Sampling Plan for the DRMO Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	December-98
99	Draft Quality Control Plan Addendum to Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigation (2) Six Sites at Fort Leavenworth, Kansas Attachment D Quality Control Plan for Site Investigation DRMO Scrap Yard	Burns & McDonnell Engineers-Architects- Consultants	December-98
100	Final GW and Surface Water Monitoring Report and Quality Control Summary Report March 1998 Sampling	Burns & McDonnell Engineers-Architects- Consultants	January-99
101	Draft Phase 2 Site Investigation Report for the United States Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	January-99
102	Draft Site Characterization and Penetrometer System (SCAPS) Supplemental Investigation FTL-10/11 Former Fire Training Areas	Army Corps of Engineers Kansas City District	February-99
103	Draft Preliminary Assessment Report Inactive Landfill FTL-8	Army Corps of Engineers Kansas City District	March-99
104	Draft Technical Memorandum Chemical Data Acquisition Plan Addendum for the 1999 Groundwater and Surface Water Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	June-99
105	Draft Work Plan Addendum for the Risk Assessment for the Pond in Family Housing (FTL-65)	Burns & McDonnell Engineers-Architects- Consultants	June-99
106	Directorate of Contracting DABT19-99-R-0002 Remove and Dispose of AST	Army Corps of Engineers Kansas City District	August-99
107	Final Technical Memorandum Chemical Data Acquisition Plan Addendum for the 1999 Groundwater and Surface Water Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	August-99
108	Draft Quality Control Plan Installation Restoration Program Support	Ecology and Environment, Inc.	April-00
109	Draft Field Sampling Plan, Health and Safety Plan and Quality Assurance Project Plan IRP Support	Ecology and Environment, Inc.	April-00
110	Draft Engineering Evaluation/Cost Analysis for FTL-6 Inactive Incinerator Landfill	Burns & McDonnell Engineers-Architects- Consultants	April-00
111	(Draft) Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event	Burns & McDonnell Engineers-Architects- Consultants	May-00
112	Draft Groundwater and Surface Water Monitoring Report September 1999 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	June-00
113	Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support	Burns & McDonnell Engineers-Architects- Consultants	June-00
114	(Final) Quality Control Plan Installation Restoration Program Support	Ecology and Environment, Inc.	June-00

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	Title	AUTHOR	DATE
115	Work Plan Addendum for the Risk Assessment for the Pond in Family Housing (FTL-65)	Burns & McDonnell Engineers-Architects- Consultants	September-00
116	(Partial) Field Sampling Plan for the DRMO Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	September-00
117	(Complete) Field Sampling Plan for the DRMO Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	September-00
118	Raw Water and Sediment Laboratory Results for FTL-65 Pond and Drainages, October 2000	Burns & McDonnell Engineers-Architects- Consultants	November-00
119	Technical Memorandum Chemical Data Acquisition Plan Addendum No. 3 for the 2000 Groundwater and Surface Water Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	November-00
120	(Partial) Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event	Burns & McDonnell Engineers-Architects- Consultants	November-00
121	Final Groundwater and Surface Water Monitoring Report September 1999 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	November-00
122	Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event	Burns & McDonnell Engineers-Architects- Consultants	November-00
123	Final Engineering Evaluation/Cost Analysis for FTL-5 Inactive Sanitary Landfill	Burns & McDonnell Engineers-Architects- Consultants	November-00
124	FTL-10 Data Summary	Ecology and Environment, Inc	January-01
125	Final Quality Control Summary Report 2000 Groundwater and Surface Water Monitoring Event	Burns & McDonnell Engineers-Architects- Consultants	February-01
126	Draft Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-03	Ecology and Environment, Inc.	March-01
127	Draft Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-02	Ecology and Environment, Inc.	March-01
128	Draft Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-69	Ecology and Environment, Inc.	March-01
129	Draft Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	March-01
130	FTL-06 Inactive Incinerator Landfill Additional Field Activities	Ecology and Environment, Inc	April-01
131	Draft Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-24	Ecology and Environment, Inc.	April-01
132	Final Quality Assurance Project Plan for the DRMO Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	April-01
133	Draft Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-10	Ecology and Environment, Inc.	May-01
134	Quality Control Summary Report 2000 Risk Assessment for the Pond in Family Housing (FTL-65)	Burns & McDonnell Engineers-Architects- Consultants	May-01
135	Draft Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-08	Ecology and Environment, Inc.	June-01
136	Final Engineering Evaluation/Cost Analysis for FTL-6 Inactive Incinerator Landfill	Burns & McDonnell Engineers-Architects- Consultants	June-01
137	Draft Engineering Evaluation/Cost Analysis for FTL-57 Former Skeet Range	Burns & McDonnell Engineers-Architects- Consultants	June-01
138	Draft Human Health Risk Assessment for the Pond in Family Housing (FTL-65)	Burns & McDonnell Engineers-Architects- Consultants	June-01
139	Draft Report Engineering Evaluation/Cost Analysis for FTL-11 Closed Firefighting Practice Area	Burns & McDonnell Engineers-Architects- Consultants	June-01

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	Title	AUTHOR	DATE
140	ITS QA Data Comparison Report for the Site Investigation Report at the Disciplinary Barracks	Burns & McDonnell Engineers-Architects- Consultants	June-01
141	Quality Control Summary Report for the DRMO Site Investigation	Burns & McDonnell Engineers-Architects- Consultants	July-01
142	Draft Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	July-01
143	Draft Site Investigation Report for the DRMO Scrap Yard (FTL-63)	Burns & McDonnell Engineers-Architects- Consultants	August-01
144	Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-03	Ecology and Environment, Inc.	October-01
145	Draft Global Positioning System Survey and Geographical Information System	Ecology and Environment, Inc.	October-01
146	Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-24	Ecology and Environment, Inc.	October-01
147	Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-69	Ecology and Environment, Inc.	October-01
148	Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-08	Ecology and Environment, Inc.	October-01
149	Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-02	Ecology and Environment, Inc.	October-01
150	Final Global Positioning System Survey and Geographical Information System Fort Leavenworth, Kansas	Ecology and Environment, Inc.	November-01
151	Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-02	Ecology and Environment, Inc.	November-01
152	Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-03	Ecology and Environment, Inc.	November-01
153	Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-10/11	Ecology and Environment, Inc.	November-01
154	Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-24	Ecology and Environment, Inc.	November-01
155	Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event	Burns & McDonnell Engineers-Architects- Consultants	November-01
156	Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-10	Ecology and Environment, Inc.	November-01
157	Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring	Environmental Chemical Corporation	November-01
158	Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-08	Ecology and Environment, Inc.	December-01
159	Draft Sampling and Analysis Plan Part I Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring	Environmental Chemical Corporation	January-02
160	Final Site Investigation Report for the DRMO Scrap Yard (FTL-63)	Burns & McDonnell Engineers-Architects-Consultants	May 10, 2002
161	Final Sampling and Analysis Plan Addendum	Environmental Chemical Corporation	June 5, 2002
162	Draft RCRA Corrective Action Work Plan Part I: Site Wide Work Plans	ARCADIS G&M, Inc.	August 22, 2002
163	Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans	ARCADIS G&M, Inc.	September 27, 2002

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	Title	AUTHOR	DATE
164	Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans	ARCADIS G&M, Inc.	October 22, 2002
165	Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 1	Environmental Chemical Corporation	October 28, 2002
166	Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 2	Environmental Chemical Corporation	October 28, 2002
167	Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 3	Environmental Chemical Corporation	October 28, 2002
168	Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 4	Environmental Chemical Corporation	October 28, 2002
169	Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 5	Environmental Chemical Corporation	October 28, 2002
170	Draft Annual Groundwater Monitoring Report 2002 Annual Sampling Event	Environmental Chemical Corporation	November 27, 2002
171	Draft Field Sampling Plan, Health & Safety Plan, & Quality Assurance Project Plan for IRP & OMA Program Support	Ecology and Environment, Inc.	November 27, 2002
172	Draft Quality Control Plan Supplement OMA Program Support	Ecology and Environment, Inc.	November 27, 2002
173	Final RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans	ARCADIS G&M, Inc.	December 20, 2002
174	Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans	ARCADIS G&M, Inc.	December 20, 2002
175	Draft Letter Report for Activities at FTL-09 Landfill Ft. Leavenworth OMA Support	Ecology and Environment, Inc.	January 10, 2003
176	(Revised) Draft Annual Groundwater Monitoring Report 2002 Annual Sampling Event	Environmental Chemical Corporation	January 17, 2003
177	Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memorandum	ARCADIS G&M, Inc.	March 4, 2003
178	(Final) Quality Control Plan Supplement IRP and OMA Program Support	Ecology and Environment, Inc.	March 13, 2003
179	Final Field Sampling Plan, Health & Safety Plan, & Quality Assurance Project Plan for IRP & OMA Program Support	Ecology and Environment, Inc.	March 13, 2003
180	Draft Pilot Test Work Plans FTL-10, Old Firefighting Training Area and FTL-15, Stoddard Solvent Tanks	ARCADIS G&M, Inc.	March 14, 2003
181	Draft RFI Addendum FTL-04, Inactive Sanitary Landfill, Hancock Avenue	ARCADIS G&M, Inc.	March 21, 2003
182	Draft RFI Addendum FTL-65, Pond in Family Housing Area	ARCADIS G&M, Inc.	March 28, 2003
183	Firing Ranges and Associated Facilities	Ecology and Environment, Inc	April 1, 2003
184	Final Annual Groundwater Monitoring Report 2002 Annual Sampling Event	Environmental Chemical Corporation	April 4, 2003
185	Draft Closure Report FTL-30, Past Pesticide Area	ARCADIS G&M, Inc.	April 4, 2003
186	(Draft) FTL-68 Reports Evaluation	Ecology and Environment, Inc	April 4, 2003
187	Draft Corrective Measures Study Report FTL-05, Inactive Sanitary Landfill, Hunt Kennels	ARCADIS G&M, Inc.	April 24, 2003

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	Title	AUTHOR	DATE
188	Final Pilot Test Work Plans FTL-10, Old Firefighting Training Area and FTL-15, Stoddard Solvent Tanks	ARCADIS G&M, Inc.	May 23, 2003
189	Draft Corrective Measures Study Report FTL-06, Inactive Incinerator Landfill, Girl Scout Area	ARCADIS G&M, Inc.	May 30, 2003
190	Background Soil Sampling Work Plan	ARCADIS G&M, Inc.	May 30, 2003
191	Biological Characterization FTL-02, Inactive Demolition Landfill, Bundel Avenue	ARCADIS G&M, Inc.	May 28, 2003
192	Final Sampling and Analysis Plan and Site Safety and Health Plan Long-Term Groundwater Monitoring	Environmental Chemical Corporation	June 5, 2002
193	Draft Closed, Transferring, and Transferred Range Site Inventory Report	Engineering-Environmental Management, Inc.	June 9, 2003
194	Draft Corrective Measures Study Report FTL-02, Inactive Demolition Landfill, Bundel Road	ARCADIS G&M, Inc.	July 11, 2003
195	Groundwater Monitoring Report - March/April 2003	ARCADIS G&M, Inc.	July 25, 2003
196	Draft Characterization of Background Levels of Metals in Soil and Groundwater Technical Memorandum	ARCADIS G&M, Inc.	August 22, 2003
197	Confirmatory Sampling Work Plan FTL-30, Past Pesticide Area	ARCADIS G&M, Inc.	August 28, 2003
198	Preliminary Draft RCRA Facility Investigation for Solid Waste Management Unit FTL-13	Ecology and Environment, Inc.	September 13, 2003
199	Final RFI Addendum FTL-04, Inactive Sanitary Landfill, Hancock Avenue	ARCADIS G&M, Inc.	September 18, 2003
200	Final RFI Addendum FTL-65, Pond in Family Housing Area	ARCADIS G&M, Inc.	September 30, 2003
201	Final Closed, Transferring, and Transferred Range Site Inventory Report	Engineering-Environmental Management, Inc.	October 3, 2003
202	Final Characterization of Background Levels of Metals in Soil and Groundwater Technical Memorandum	ARCADIS G&M, Inc.	October 3, 2003
203	(Final) FTL-68 Reports Evaluation	Ecology and Environment, Inc.	October 7, 2003
204	Final Corrective Measures Study Report FTL-05, Inactive Sanitary Landfill, Hunt Kennels	ARCADIS G&M, Inc.	October 10, 2003
205	Draft RCRA Facility Investigation for Solid Waste Management Unit FTL-13	Ecology and Environment, Inc.	October 14, 2003
206	Draft Groundwater and Surface Water Monitoring Report for FTL-09, Inactive Landfill, June 2003 Sampling Event for OMA Support	Ecology and Environment, Inc.	October 15, 2003
207	Final Corrective Measures Study Report FTL-06, Inactive Incinerator Landfill, Girl Scout Area	ARCADIS G&M, Inc.	October 20, 2003
208	Groundwater Monitoring Report - March/April 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)	ARCADIS G&M, Inc.	October 21, 2003
209	Preliminary Draft RCRA Facility Investigation for Solid Waste Management Unit FTL-12	Ecology and Environment, Inc.	October 27, 2003
210	Groundwater Monitoring Report - June/July 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)	ARCADIS G&M, Inc.	October 28, 2003
211	Quarterly Report (July - September 2003) for DSMOA	KDHE	October 29, 2003

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	Title	AUTHOR	DATE
212	Final (Revision 1) RFI Addendum FTL-65, Pond in Family Housing Area	ARCADIS G&M, Inc.	October 31, 2003
213	Final (Revision 1) RFI Addendum FTL-04, Inactive Sanitary Landfill, Hancock Avenue	ARCADIS G&M, Inc.	October 31, 2003
214	Preliminary Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Supplement IRP and OMA Program Support	Ecology and Environment, Inc.	November 13, 2003
215	Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Supplement IRP and OMA Program Support	Ecology and Environment, Inc.	November 21, 2003
216	Final Closure Report FTL-30, Past Pesticide Area	ARCADIS G&M, Inc.	November 25, 2003
217	Final RCRA Facility Investigation for Solid Waste Management Unit FTL-13	Ecology and Environment, Inc.	December 11, 2003
218	Final (Revision 1) Corrective Measures Study Report FTL-05, Inactive Sanitary Landfill, Hunt Kennels	ARCADIS G&M, Inc.	December 12, 2003
219	Final (Revision 1) Corrective Measures Study Report FTL-06, Inactive Incinerator Landfill, Girl Scout Area	ARCADIS G&M, Inc.	December 12, 2003
220	Preliminary Draft RCRA Facility Investigation for Solid Waste Management Unit FTL-63	Ecology and Environment, Inc.	December 16, 2003
221	Final Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Supplement IRP and OMA Program Support	Ecology and Environment, Inc.	January 22, 2004
222	Draft RFI Report FTL-07, Inactive Sanitary Landfill, Behind Girl Scout Area	ARCADIS G&M, Inc.	January 30, 2004
223	Draft RCRA Facility Investigation for Solid Waste Management Unit FTL-63	Ecology and Environment, Inc.	January 30, 2004
224	Final (Revision 1) Closure Report FTL-30, Past Pesticide Area	ARCADIS G&M, Inc.	February 3, 2004
225	Groundwater Monitoring Report - September/October 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)	ARCADIS G&M, Inc.	February 10, 2004
226	Draft RFI Work Plan Addendum FTL-07, Inactive Sanitary Landfill, Behind Girl Scout Area	ARCADIS G&M, Inc.	April 9, 2004
227	Letter Report for FTL-09 Landfill Maintenance Activities, April 2004 OMA Support	Ecology and Environment, Inc.	April 20, 2004
228	Corrective Measures Study (CMS) Work Plan Addendum Draft Supplemental Soil Investigation ftl-15, Stoddard Solvent Tanks Area	ARCADIS G&M, Inc.	April 23, 2004
229	Preliminary Draft FTL-68 Confirmation Sampling Report, Fort Leavenworth, Kansas	Ecology and Environment, Inc.	April 27, 2004
230	Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans, Fort Leavenworth, Kansas	ARCADIS G&M, Inc.	April 30, 2004
231	Draft FTL-68 Confirmation Sampling Report, Fort Leavenworth, Kansas	Ecology and Environment, Inc.	May 4, 2004
232	Draft Construction Documents for FTL-05, Inactive Sanitary Landfill, Hunt Kennels, Fort Leavenworth, Kansas	ARCADIS G&M, Inc.	May 18, 2004
233	Draft Remedial Closure Construction Drawings	ARCADIS G&M, Inc.	May 18, 2004

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	Title	AUTHOR	DATE
234	Draft Corrective Measures Study report, FTL-02 and FTL-03, Inactive Demolition Landfills, Bundel Road and Wint Avenue, Leavenworth, Kansas	ARCADIS G&M, Inc.	May 17, 2004

ER,A ELIGIBLE ACTIVE SITE DESCRIPTIONS

FTL-02

INACTIVE LANDFILL (PAGE 1 0F 3)

SITE DESCRIPTION

Site FTL-02 is an old construction/demolition landfill located on the southeast end of the Fort. The northern site boundary is One Mile Creek, which originates in the Normandy Family Housing Area and flows east to the Missouri River. The site is also bordered to the north by FTL-03, which starts on the North Side of the Creek. The eastern site boundary is an old government railroad right-of-way that is now a hiking trail. The southern boundary follows the hiking trail as it curves to the west. The western boundary is Bundel Road. There is family housing and a school to the west. The 2000 RCRA Facilities Investigation found the site to be approximately 4.6 acres in size.

The 1984 AEHA report stated that the landfill received demolition waste in 1982 and 1983, but indications are that it received wastes before then. The report recommended that it be permitted with KDHE, but there is no information that a permit was ever requested or received. The AEHA report estimated the site was about 3 acres in area, but subsequent investigations found it to be much larger. The site is fairly level with much of the area covered with trees.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
Metals, SVOCs, PCBs, Pesticides
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE: RI/FS
FUTURE IRP PHASE:
RD, RA

The site was a water filled depression prior to filling. The area may have been used as a borrow area for soil to build Bundel Road, the Government Railroad track and the Union Pacific Railroad tracks. The resulting depression held stagnant water that was a breeding ground for mosquitoes. The report states that 28,000 cubic meters of construction demolition waste was placed in the site in 1983. The debris at that time was coming from a group of concrete block buildings located on the southwest corner of the intersection of Cody and Grant, but could have originated from any where on the Fort. The site supports many trees, but very little grass.

Concerns about lead during a 1987 inspection resulted in an assessment of the site. The Corps of Engineers in 1998 performed a Site Investigation that found some metals in soil exceeding several of the Kansas Interim Remedial Guidelines for residential use. Ecology and Environment, Inc, (E&E) performed a RCRA Facilities Investigation on the site in 2000. Their report was issued in the Spring of 2001. They found that the site is much larger than originally reported. The contamination levels were consistent with the Preliminary Assessment. PAHs and PCBs were detected insoil, exceeding screening criteria.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002. ARCADIS has completed a habitat evaluation for a risk assessment, cover evaluation, groundwater sampling, surface water sampling and sediment sampling and prepared a draft CMS.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. Due to the proximity and similar nature of the two sites, the CMS will be finalized and the remedy implemented in conjuction with efforts at FTL-03. The remedy is expected to be a vegetative soil cover.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials. The CMS will require installation input and a public review period to gage the affect that proposed activities would have. Only those activities that do not cause damage will be allowed.

The Bundel Road expansion has impacted the western portion of the site and will serve as partial cover for the final remedy. Drainage design issues have been coordinated with the cover design.

FTL-02
INACTIVE LANDFILL (PAGE 2 0F 3)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., May 17, 2004, Draft Corrective Measures Study report, FTL-02 and FTL-03, Inactive Demolition Landfills, Bundel Road and Wint Avenue

ARCADIS G&M, Inc., Feb 10, 2003, Groundwater Monitoring Report - September/October 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 28, 2003, Groundwater Monitoring Report - June/July 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

ARCADIS G&M, Inc., Oct 21, 2003, Groundwater Monitoring Report - March/April 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Jul 25, 2003, Groundwater Monitoring Report - March/April 2003

ARCADIS G&M, Inc., Jun 11, 2003, Draft Corrective Measures Study Report, Inactive Demolition Landfill, Bundel Road

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., May 28, 2003, Biological Characterization FTL-02, Inactive Demolition Landfill, Bundel Avenue

Ecology and Environment, Inc., Mar 13, 2003, (Final) Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I & II: Site-Specific Work Plans

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ARCADIS G&M, Inc., September 27, 2002, Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans

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Environmental Chemical Corporation, Jun 2002, Final Sampling and Analysis Plan Addendum Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long Term Groundwater Monitoring

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Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long Term Groundwater Monitoring

Ecology and Environment, Inc., Nov 2001, Final Quality Control Summary Report for Fort Leavenworth Investigations

Ecology and Environment, Inc., Oct 2001, Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-02

Ecology and Environment, Inc., Jan 2001, Quality Control Summary Report for Fort Leavenworth Investigations

Ecology and Environment, Inc., Jun 2000, Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support

Ecology and Environment, Inc., June 1, 2000, (Final) Quality Control Plan Installation Restoration Program Support

Kansas City District Corps of Engineers, Jun 1998, Draft Preliminary Assessment Report FTL-2 & 3 Demolition Landfills

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

USAEHA, Mar 1986, Groundwater Potential Contamination Survey No. 38-26-0916-86

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-03

INACTIVE LANDFILL (PAGE 1 0F 2)

SITE DESCRIPTION

Site FTL-03 is a construction demolition landfill that has some large pieces of concrete at the surface. The northern site boundary is about 50 meters north of the intersection of Wint and Stimson Avenues. Further to the north is a steep embankment that slopes to the east until it reaches the Missouri River. The eastern site boundary is the abandoned government railroad right-of-way that comes from FTL-02 from the south and is now a hiking trail. Past the trail is an active Union Pacific Railroad track and the Missouri River. The southern boundary is One Mile Creek that forms the boundary between this site and FTL-02. The western boundary is Stimson Avenue. The closest development is family housing about 100 meters from the northwest corner and Bell Hall which houses the Command and General Staff College. Features of note include a large abandoned natural gas pipeline running across the south side of the site and along the west side. The site has numerous steep slopes trending downhill to the river on the east and the creek on the south. The site is approximately 2 acres in size.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
Metals, PCBs, VOCs, SVOCs, Pesticides
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE: RI/FS
FUTURE IRP PHASE:
RD, RA

The history of this site is unclear. The 1983 AEHA study found that this site received waste in 1975. It consisted of clean fill comprised of soil, rocks, and concrete. There are locations where large pieces of concrete extend above the surface. The study reported that Fort Leavenworth had requested a permit for this site in May 1984. However, no records have been located to show that a permit was requested or any permit issued.

The 1988 AEHA report indicated that this site had a low hazard potential and did not require investigation. The 1997 ECAS inspection recommended that this site be investigated based on a concern that even construction waste could pollute the stream or river. The Corps of Engineers performed and completed the Site Investigation in 1998. The investigation found levels of PCB above EPA's accepted screening levels.

Ecology and Environment, Inc. performed a RCRA Facilities Investigation in 2000 and submitted their final report in October 2001 recommending further investigation of FTL-03. The investigation reported that even though the extent of the landfill material appears to have been delineated, the extent of the contamination has not. The perimeter of the landfill was defined by the geophysical survey during the RFI; however, high PCB detections at the north edge of the landfill indicate the extent of PCB contamination may extend further north and possibly west. The investigation also reported that aside from the fill material in the landfill, the abandoned natural gas pipeline located north of the target landfill might also be the source of PCBs.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the FY 2004 option to the ARCADIS G&M Contract, which was funded in Jan 2004. A draft CMS has been prepared that combines the remedy for FTL-02 and FTL-03. The remedy is expected to be a vegetative soil cover. Once the remedy has been selected, they will proceed with design and implementation of the final remedy.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials. The CMS will require installation input and a public review period to gage the affect that proposed activities would have. Only those activities that do not cause damage will be allowed. The Bundel Rd expansion has impacted the western portion of the site and will serve as partial cover for the final remedy. Drainage design issues have been coordinated with the cover design.

FTL-03
INACTIVE LANDFILL (PAGE 2 0F 2)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., May 17, 2004, Draft Corrective Measures Study report, FTL-02 and FTL-03, Inactive Demolition Landfills, Bundel Road and Wint Avenue

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

Ecology and Environment, Inc., Mar 13, 2003, (Final) Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

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ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

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Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

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Ecology and Environment, Inc., Oct 2001, Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-03

Ecology and Environment, Inc., Jun 2000, Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support

Ecology and Environment, Inc., Jun 2000, (Final) Quality Control Plan Installation Restoration Program Support

Ecology and Environment, Inc., Apr 2000, Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support

Kansas City District Corps of Engineers, Jun 1998, Draft Preliminary Assessment Report FTL-2 and FTL-3 Demolition Landfills

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

USAEHA, Mar 1986, Groundwater Potential Contamination Survey No. 38-26-0916-86

FTL-04

INACTIVE SANITARY LANDFILL (PAGE 1 OF 2)

SITE DESCRIPTION

Site FTL-04 is an inactive sanitary landfill that received trash and is surrounded on three sides by family housing. The northern border of the site is a soccer field and family housing. The eastern site boundary is family housing units that access via 3rd Infantry Road. The southern boundary is an open area with the Harold Youth Center at the end. The western boundary is Kansas Avenue. The site is divided north to south by a seasonal creek that extends up to Hancock Avenue on the north. From that point the creek runs through storm sewer pipe. The landfill is in the form of a U around the creek. The site is also divided east and west by Hancock Avenue on the north end. This landfill has been covered with soil and has a good cover of grass that is kept mowed in the summer. The Facilities Investigation found the site to be approximately 4.4 acres in size.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
Metals, SVOCs, PAHs
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED IRP PHASE:
PA/SI, IRA, RI
CURRENT IRP PHASE: FS (ROD)
FUTURE IRP PHASE: LTM

The landfill was active in the late 1940s to the early 1950s and contains general refuse. Houses were constructed around the site in the 1960s and 1970s. The 1988 AEHA Report stated that this site had a low hazard potential and did not require investigation. In 1993, a retired Fort Leavenworth employee, stated that radioactive medical wastes might have been buried in this landfill. The site was investigated based on this report.

Burns and McDonnell, Inc. performed a Site Investigation in 1996 to determine chemical and radioactive contamination. The investigation consisted of borings and monitoring wells, but did not find any chemical levels above the screening levels used at that time. In the spring of 1997, the Naval Sea Systems Command surveyed the site and located one radioactive source, a compass with a radium painted dial. All other areas had normal background or below background levels of radiation. The compass was removed and shipped off-post using radioactive material disposal procedures.

This site was initially listed as DERA Response Complete based on the 1997 findings. However in 2000, regulatory agencies disallowed the use of the 1997 laboratory data for decision-making purposes because Intertek Testing Services (ITS) of Richardson, Texas performed the chemical analyses. This decision followed the disclosure by ITS of fraudulent manipulation of organic data on projects not related to Ft. Leavenworth.

This site became part of the Guaranteed Fixed-Price Remediation Contract with ARCADIS G&M in 2002. ARCADIS has completed additional site characterization activities that included a cover evaluation, groundwater, sediment and surface water sampling in order to replace the questionable data and to evaluate the potential hazards posed by this site.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. Based on the additional site characterization information ARCADIS prepared a RFI report and baseline risk assessment. The RFI report recommended No Further Action for this site. The Statement of Basis (i.e. Decision Document) will be made available for public review and comment in summer 2004.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials.

FTL-04

INACTIVE SANITARY LANDFILL (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., Oct 31, 2003, Final (Revision 1) RFI Addendum FTL-04, Inactive Sanitary Landfill, Hancock Avenue

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

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ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

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Arcadis G&M, Dec 2002, Draft RCRA Corrective Action Plan, Part II: Site-Specific Work Plans

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

NAVSEADET RASO, Oct 1997, Radiological Survey Report Hancock Landfill

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ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

NAVSEADET RASO, Jul 1997, Radiological Survey Work Plan Hancock Landfill

Burns & McDonnell Engineers-Architects-Consultants, Jan 1997, Final Site Investigation Report Hancock Landfill

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Burns & McDonnell Engineers-Architects-Consultants, Jan 1997, Final Quality Control Summary Report Hancock Landfill Volume II of II

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Burns & McDonnell Engineers-Architects-Consultants, Apr 1996, Work Plan Hancock Landfill Site Investigation

Burns & McDonnell Engineers-Architects-Consultants, Dec 1995, Chemical Data Acquisition Plan for the Groundwater and Surface Water Sampling Program 1995, 1996, and 1997

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units, Fort Leavenworth, Kansas

USAEHA, Mar 1986, Groundwater Potential Contamination Survey No. 38-26-0916-86

FTL-05

INACTIVE SANITARY LANDFILL (PAGE 1 OF 4)

SITE DESCRIPTION

This landfill, which is about 8 acres in size, received sanitary solid waste. The north edge of the site is about 120 meters south of McPherson Avenue along a barbed wire fence. The kennel for the Fort Leavenworth Hunt's dogs occupies the area located between the road and the site. The east boundary is a barbed wire fence that is about 200 meters west of West Warehouse Road. The south boundary of the site is Quarry Creek. The west boundary is a barbed wire fence that runs primarily north and south from the Hunt Club Riding Arena. Access to the site is from McPherson Avenue down the road leading past the ammunition bunker and the riding arena.

This sanitary landfill was used from 1970 to 1977. A new sanitary landfill replaced this landfill (see FTL-09). The site was covered with soil when it was closed. The 1983 AEHA report indicated the site was covered with shallow gullies that had cut into the top of the refuse. Additional cover was being placed on the site at the time the report was written.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Metals, SVOCs, VOCs, PAHs
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED IRP PHASE:
PA/SI, RI/FS
CURRENT IRP PHASE: RD, RA
FUTURE IRP PHASE: RA(O)

The 1988 AEHA SWMU report recommended investigation of this site. O'Brien and Gere Engineers, Inc. performed a Site Investigation. It started in 1990 and was completed in 1993. SVOCs and metals were detected in the groundwater. Cadmium and lead were detected in one groundwater monitoring well above MCLs. Annual groundwater and surface water sampling of the monitoring wells at this site was started in 1994. The groundwater and surface water samples were analyzed for VOCs, SVOCs, and TAL metals. None of the groundwater or surface water results exceeded the MCLs for analytes that were tested. Burns and McDonnell, Inc. completed an Engineering Evaluation and Cost Analysis (EE/CA) for the site in October 2000.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002. ARCADIS completed a CMS (2003) that recommended repairing the landfill cover to comply with the prescriptive remedy for the landfill covers. The recommended remedy was approved by USEPA and KDHE. ARCADIS is currently preparing the design documents.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. The Statement of Basis (i.e. Decision Document) will be made available for public review and comment in summer 2004. The remedy will be implemented in fall 2004. Long-Term O&M will include periodic groundwater monitoring and land use controls.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials.

FTL-05

INACTIVE SANITARY LANDFILL (PAGE 2 OF 4)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., May 18, 2004, Draft Remedial Closure Construction Drawings

ARCADIS G&M, Inc., May 18, 2004, Draft Construction Documents for FTL-05, Inactive Sanitary Landfill, Hunt Kennels

ARCADIS G&M, Inc., Feb 10, 2003, Groundwater Monitoring Report - September/October 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

ARCADIS G&M, Inc., Dec 12, 2003, Final (Revision 1) Corrective Measures Study Report, Inactive Sanitary Landfill, Hunt Kennels

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 28, 2003, Groundwater Monitoring Report - June/July 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

ARCADIS G&M, Inc., Oct 21, 2003, Groundwater Monitoring Report - March/April 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

ARCADIS G&M, Inc., Oct 10, 2003, Final Corrective Measures Study Report FTL-05, Inactive Sanitary Landfill, Hunt Kennels

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Jul 25, 2003, Groundwater Monitoring Report - March/April 2003

Environmental Chemical Corporation, Jun 5, 2003, Final Sampling and Analysis Plan and Site Safety and Health Plan Long-Term Groundwater Monitoring

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., April 24, 2003, Draft Corrective Measures Study Report FTL-05, Inactive Sanitary Landfill, Hunt Kennels

Environmental Chemical Corporation, Apr 4, 2003, Final Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

Environmental Chemical Corp, Jan 17, 2003, (Revised) Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I & II: Site-Specific Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

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Environmental Chemical Corporation, Oct 2002, Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event, Volumes 1 through 5

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ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Environmental Chemical Corporation, Jun 2002, Final Sampling and Analysis Plan Addendum Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, June 5, 2002, Final Sampling and Analysis Plan Addendum

Environmental Chemical Corporation, Apr 2002, Final Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Nov 2001, Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Mar 2001, Draft Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Feb 2001, Final Quality Control Summary Report 2000 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Technical Memorandum Chemical Data Acquisition Plan Addendum No. 3 for the 2000 Groundwater and Surface Water Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, (Partial) Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Groundwater and Surface Water Monitoring Report September 1999 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Oct 2000, Final Engineering Evaluation/Cost Analysis for FTL-5 Inactive Sanitary Landfill

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Final Groundwater and Surface Water Monitoring Report and Quality Control Summary Report March 1998 Sampling Event

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Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Chemical Data Acquisition Plan Addendum for the 1997, 1998 and 1999 Groundwater and Surface Water Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Site Health and Safety Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Sept 1997, Quality Control Summary Report for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Background Samples

Burns & McDonnell Engineers-Architects-Consultants, Aug 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment B Quality Assurance Project Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment A Field Sampling Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment C Site Safety and Health Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment D Quality Control Plan

Burns & McDonnell Engineers-Architects-Consultants, Dec 1996, Groundwater and Surface Water Monitoring Report October 1996 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Sept 1996, (Final) Groundwater and Surface Water Monitoring Report December 1995 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Apr 1996, Quality Control Summary Report Groundwater and Surface Water Monitoring Report December 1995 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Dec 1995, Chemical Data Acquisition Plan for the Groundwater and

Surface Water Sampling Program 1995, 1996, and 1997

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Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Chemical Data Acquisition Plan Groundwater Sampling Program

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volumes 1 through 7

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

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Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-06

INACTIVE LANDFILL (PAGE 1 OF 4)

SITE DESCRIPTION

This approximately 2 acre landfill received incinerator ash. It is located across an intermittent creek north of McPherson Avenue. The east side of the site is heavily wooded which then extends on to Sylvan Trail Road. The west side is forested.

A stream runs west to east through a pipe, across the site. When the site was active, a 30-inch concrete culvert was constructed in the creek channel with ash and other debris filled around it. The depth of the fill over the culvert is estimated to be six to eight feet.

The 1983 AEHA report states that a large refuse incinerator was active at this site in the 1940s until sometime into the 1950s. The ash from the incinerator was reportedly deposited in the surrounding area. The materials incinerated included household refuse, office wastes, and maintenance shop wastes.

The 1988 AEHA SWMU report recommended that this site be investigated due to the potential of contamination caused by toxic metals in the fill material.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Metals, SVOCs, PAHs
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED IRP PHASE:
PA/SI, RI/FS
CURRENT IRP PHASE: RD, RA
FUTURE IRP PHASE: RA (O)

The Site Investigation started in 1990 and was completed in 1993 by O'Brien and Gere Engineers, Inc. One Semi-volatile organic compound (benzo(a)pyrene) was detected in soil at a level above the USEPA Region IX Preliminary Remediation Goals (PRGs). One metal (chromium) was detected in groundwater at a level above surface water criteria and/or MCLs. Two metals (lead and zinc) were detected in surface water at levels above Federal Ambient Water Quality Criteria (FAWQC). Annual sampling of the monitoring wells at this site started in 1994. The groundwater and surface water samples were analyzed for VOCs, SVOCs, and TAL metals. None of the groundwater or surface water results exceeded the MCLs for analytes that were tested with the exception of an exceedence of lead and cadmium from monitoring well 6W2 during the 1994 sampling event and in the rinsate blank associated with this sample. The surface water samples collected from 1994 through 2000 had no exceedences for VOCs or SVOCs. Lead and zinc were detected at levels that exceeded the FAWQC during this period, although it was noted that zinc was detected in the rinsate blanks associated with these samples also. E&E completed a study in 2001, that detected lead in the fill material above regulatory standards. Burns and McDonnell, Inc. completed an Engineering Evaluation and Cost Analysis report for the site in 2002.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002. ARCADIS prepared a CMS that recommended grouting the culvert in place, re-routing the stream through a channel constructed east of the landfill along Sylvan Trail Road, and repairing the landfill cover (including placing contaminated stream sediments under the landfill cover) to comply with the prescriptive remedy for landfills. The recommended remedy was approved by USEPA and KDHE, and ARCADIS is currently preparing the design documents.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. The Statement of Basis (i.e. Decision Document) will be made available for public review and comment in summer 2004. The remedy will be implemented in fall 2004. Long-Term O&M will include periodic groundwater monitoring and land use controls.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials.

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., Feb 10, 2003, Groundwater Monitoring Report - September/October 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

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ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

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FTL-07

INACTIVE SANITARY LANDFILL (PAGE 1 OF 2)

SITE DESCRIPTION

This landfill is located north of FTL-06, the Girl Scout Area and is approximately 3 acres in size. A road that runs north of the intermittent creek that bisects FTL-06 provides access to the site. The northern boundary of the site is forest. The area to the east is forest for several hundred meters and then Sylvan Trail Rd. To the southwest is forest. A gravel road marks the western boundary of the site with forest beyond it.

Currently, the site is covered with waste lime sludge from the Fort's Lime Sludge Lagoons. This area was used as a sanitary landfill between 1967 and 1970. The 1988 AEHA Report lists petroleum, oils, and lubricants (POL), wood waste, ash from incinerated material and other types of solid waste as being disposed of in FTL-07. In 1990, the site was used as a disposal site for lime sludge. The 1989 AEHA Report indicated this site had a low hazard potential and did not require investigation. However, this assessment was made before the site was covered with lime sludge. Regulatory agencies have requested investigation of the site to characterize the nature and extent of contamination.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002. ARCADIS completed the initial site characterization and prepared a Draft RFI report in 2003. Site characterization activities included soil boring sampling, surface soil sampling, monitoring well installation, groundwater sampling, lime sludge sampling, waste delineation via geophysical surveys and cover evaluation. Based on the review of the Draft RFI Report additional site characterization is needed.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Medium
CONTAMINANTS OF CONCERN:
Metals, VOCs, SVOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA
CURRENT IRP PHASE: RI/FS
FUTURE IRP PHASE:
RD, RA

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. ARCADIS is currently working on evaluating the results of the field investigations and gathering information that will be needed to complete the RFI and prepare a CMS.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials.

FTL-07
INACTIVE SANITARY LANDFILL (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

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FTL-08

INACTIVE SANITARY LANDFILL (PAGE 1 OF 2)

SITE DESCRIPTION

The Inactive Sanitary Landfill encompasses approximately 5 acres and is located in the northwest corner of the flood plain area of the Fort. The site is bounded on the north by flood plain forest and then by the Missouri River. The area to the east is farmland that has been leased to a private individual. The area to the south starts with the levee protecting the airfield and a wetland. The west side is bounded by the Union Pacific Railroad tracks.

The 1983 AEHA report indicates this site was used from the 1950s to 1967 as a wood recycling area where tree trimmings and other wooden debris were sent. Wood that was not recycled was burned and/or buried on the site.

The 1988 AEHA report indicates this landfill received construction and demolition wastes, residential wastes, and bulk wastes. Bulk wastes consisted of appliances, mattresses and springs, and wood waste. The 1988 report lists this site as a sanitary landfill. Several employees in 1998 reported that this site was used as a burn area to reduce the debris coming from the numerous wooden barracks that Fort Leavenworth demolished in 1975 and 1976.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
VOCs, SVOCs, PCBs, Metals
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA
CURRENT IRP PHASE:
RI
FUTURE IRP PHASE:
RA

The July 1997 Fort Leavenworth ECAS inspection recommended that this site be investigated. HQ TRADOC provided FY98 funds for investigation. The Preliminary Assessment was performed in the summer of 1998 and found sufficient contamination to allow the site to be placed into the Army Restoration Program. The primary concerns are lead in the soil and benzene in the groundwater above regulatory limits. Several other SVOCs, PCBs, and pesticides also were detected at low levels in soil.

The year 2001 found Ecology and Environment, Inc, (E&E) performing a RCRA Facilities Investigation on the site. As part of the RCRA Facilities Investigation at FTL-08, E&E also investigated a 3.5-acre area to the east of the site where a geophysical investigation indicated possible contamination. Their investigation was expanded due to anomalies found during a previous geophysical investigation performed on an immediately adjacent 3.5-acre area east of the site. The final report was issued in October 2001. E&E advanced a total of eight soil borings at the site and installed six observation wells. They found contamination levels consistent with the Preliminary Assessment. Numerous VOCs, SVOCs, PCBs and pesticides were detected in surface and subsurface soil within the landfill, of which only benzo(a)pyrene exceeded human health screening criteria. Arsenic, iron, and lead were detected in soil at levels exceeding human health screening criteria. Two VOCs were detected in groundwater, neither of which exceeded human health screening criteria. No SVOCs, PCBs, or pesticides were detected in groundwater. Arsenic, iron, and manganese exceeded human health screening criteria in groundwater. No PCBs were detected by the testing.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2006 option to the ARCADIS G&M Contract. Once the option is executed, ARCADIS G&M personnel will start an evaluation of the site. They are expected to use the results of the RFI to complete a Risk Assessment. The risk assessment results will be incorporated into a Corrective Measures Study for the site that will be used for remedy selection. Once the remedy has been selected, they will proceed with design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials.

The areas to the east of this site are expected to remain under lease. Any work in this area must be coordinated with the leaseholder.

FTL-08

INACTIVE SANITARY LANDFILL (PAGE 2 OF 2)

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Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-10

OLD FIRE TRAINING AREA/BURN PIT (PAGE 1 0F 4)

SITE DESCRIPTION

FTL-10 is located on the Missouri River floodplain at the north end of the levee area. The site is located towards the northeast corner of the area. The surface area is approximately 0.80 acres (60 by 60 meters) in size and is primarily an open field with a few trees. A levee road borders the north side of the site. The east, south and west sides are bounded by leased agricultural areas.

The site was used for firefighting training. These activities probably started in the 1950s and continued until 1980. The flammable materials utilized for firefighting training are reported to have been POL wastes, solvents, paint thinners, paint sludges, and other flammable materials. These materials were placed directly on the ground and ignited.

In 1981, Fort Leavenworth requested AEHA analyze four samples of soil from the area for PCBs. The request stated that the area was contaminated with organic solvents, paint sludges, and thinners that had been placed in the area and ignited semi-annually for use in firefighting training.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
VOCs, SVOCs, Metals
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RD, RA, LTM

In June 1981, approximately 40 drums and ten 5-gallon cans of various ignitable solvents were removed from the site and taken to a shed located at FTL-09. The 1983 AEHA inspection found 30 drums at the site. These drums were believed to contain POL and/or other solvents. The AEHA found oily residue materials adjacent to the drum storage area. The drums were properly disposed of in accordance with regulatory requirements. The assessment found no records about the type or quantities of wastes that had been disposed at this site.

KDHE directed Fort Leavenworth to perform a time-critical removal action on the site. Discussions with Fort Leavenworth personnel indicated that Fort Leavenworth personnel performed surface remediation of contaminated soil in the early 1980s and the material was buried in the Fort Leavenworth Sanitary Landfill, FTL-09.

A Site Investigation began in October 1988 when Hunter Environmental Services, Inc. started an examination of the site. Contractual problems caused the work to stop and never be restarted. The 1989 AEHA report recommended this study to continue and appropriate corrective measures determined.

In 1997, Burns & McDonnell, Inc. conducted a Site Investigation (SI) that included the installation of four additional monitoring wells and subsurface soil and groundwater sampling. Traces of free-phase hydrocarbons at the soil/groundwater interface and stained soil were observed at several locations during the SI. VOC contamination was detected throughout much of FTL-10; however, the only location where VOC concentrations in soil exceeded the screening criteria was 10W5. SVOCs in soil were detected only at 10W5, through none of the concentrations reported exceeded screening criteria. The only metal in soil that exceeded screening criteria was arsenic; however, the concentrations are believed to be naturally occurring. Ten VOCs were detected at levels that exceeded criteria in various samples at FTL-10. SVOCs were detected in groundwater only at 10W5, two of which exceeded screening criteria. Monitoring Well 10W5 also contained extremely elevated metals in groundwater.

The investigation of the site continued in the fall of 1998 when the Corps of Engineers Site Characterization and Penetrometer System (SCAPS) truck was brought to the site. They found groundwater contaminated with VOCs at depths ranging from 40-65 ft bgs. Fort Leavenworth obtains drinking water from wells screened at 120 ft. bgs located approximately 3,500 feet to the south of FTL-10.

Ecology and Environment, Inc. completed a RCRA Facilities Investigation at the site in November 2001. Twelve VOCs exceeded their residential risk-based criteria (RSK) established by KDHE and/or Region 9 PRG in 10W5. They drilled wells to help model the groundwater flow in the area in addition to a line of sentinel wells between

the site and Fort Leavenworth Drinking Water Wells. The U.S. Geological Survey is producing a groundwater flow model for this area of the installation. The model should be completed in the year 2004 and will be used to help determine the direction of the groundwater flow. The site has been monitored annually under the installation-wide groundwater monitoring program.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. ARCADIS is conducting an enhanced bioremediation pilot study (expected to be completed in fall 2004), evaluating the contamination data from the site, and gathering information that will be needed for a Risk Assessment. The results of current investigations, pilot study, and risk assessment will be used in developing the CMS for the site that will be used for remedy selection. Once the remedy has been selected they will proceed with design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained at the Burn Pit, Old Firefighting Training Area.

Remedial activities are expected to continue for several years. Access to the site will be restricted until the site is closed. Nothing should be planned for this site until remediation is completed. This site is expected to require Long-Term Monitoring.

REMEDIATION DOCUMENTATION

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FTL-10

OLD FIRE TRAINING AREA/BURN PIT (PAGE 3 0F 4)

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

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OLD FIRE TRAINING AREA/ BURN PIT (PAGE 4 0F 4)

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Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-11

CLOSED FIRE TRAINING AREA (PAGE 1 OF 3)

SITE DESCRIPTION

FTL-11 is located inside the airfield levee. The major feature of the site is a concrete pad located on the east side of the levee area towards the south end. The concrete pad was the end of a cinder runway that ran from the southeast to the northwest in this area. The site is surrounded by pasture on all four sides. Access to the site is via a dirt road that comes off the levee on the east side of the airfield and runs west to the site. The site is approximately 1.2 acres in size.

This site was opened in about 1980 and was closed about 1989. Approximately six firefighting training sessions were held each year. The 1983 AEHA study indicated about 1,200 gallons of off-specification JP-4 was used annually. The fuel was distributed to an airplane simulator using steel piping. In 1983, an 8-inch berm was constructed around the center area of the site to contain runoff. The simulated airplane, associated piping, and other metal objects at the site were removed as scrap metal.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Metals, VOCs, SVOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
LTM

The 1988 AEHA report recommended that this site be investigated. O'Brien and Gere Engineers, Inc. performed a site investigation between 1990 and 1993. Metals were found to be above Kansas Action Levels. Burns and McDonnell, Inc. conducted a limited site investigation in conjunction with an on-going Engineering Evaluation and Cost Analysis in 1997. They found benzene contamination in the soil under the fuel storage area. Their final report was issued in February 2002. The Final Engineering Evaluation and Cost Analysis performed by Burns & McDonnell Engineers found benzene in the groundwater, but did not determine its extent.

Ecology & Environment installed perimeter fencing at the site in December 2001 to limit access from immediately adjacent land.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is in the Fiscal Year 2004 option of the ARCADIS G&M Contract which was funded in Jan 2004. ARCADIS is preparing a Work Plan for additional site characterization to address data gaps and inconsistencies They are expected to use the results of the previously completed studies to develop a risk assessment. The risk assessment results will be incorporated into a corrective measures study of the site that will be used for remedy selection. Following selection of the final remedy, ARCADIS will proceed with design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained at the Closed Firefighting Training Area. Access to the site will be restricted until the site is closed. Nothing should be planned for this site until remediation is completed.

FTL-11
CLOSED FIRE TRAINING AREA (PAGE 2 OF 3)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., April 30, 2004, Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

Environmental Chemical Corporation, Jun 5, 2003, Final Sampling and Analysis Plan and Site Safety and Health Plan Long-Term Groundwater Monitoring

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

Environmental Chemical Corporation, Apr 4, 2003, Final Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

Environmental Chemical Corp, Jan 17, 2003, (Revised) Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

Environmental Chemical Corporation, Nov 27, 2002, Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

Environmental Chemical Corporation, Nov 2002, Draft Annual Groundwater Sampling Monitoring Report 2002 Annual Sampling Event

Environmental Chemical Corporation, October 28, 2002, Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 1-5

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Environmental Chemical Corporation, Oct 2002, Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event, Volumes 1 through 5

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

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Environmental Chemical Corporation, Jun 2002, Final Sampling and Analysis Plan Addendum Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Apr 2002, Final Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Burns & McDonnell Engineers-Architects-Consultants, Feb 2002, Final Report Engineering Evaluation/Cost Analysis for FTL-11 Closed Firefighting Practice Area

Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Ecology and Environment, Inc., Nov 2001, Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-10/11

Burns & McDonnell Engineers-Architects-Consultants, Nov 2001, Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Jun 2001, Draft Report Engineering Evaluation/Cost Analysis for FTL-11 Closed Firefighting Practice Area

Burns & McDonnell Engineers-Architects-Consultants, Feb 2001, Final Quality Control Summary Report 2000 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Technical Memorandum Chemical Data Acquisition Plan Addendum No. 3 for the 2000 Groundwater and Surface Water Sampling Event

CLOSED FIRE TRAINING AREA (PAGE 3 OF 3)

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Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

U.S. Army Corps of Engineers Kansas City District, Feb 1999, Draft Site Characterization and Penetrometer System (SCAPS) Supplemental Investigation FTL-10/11 Former Fire Training Areas

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Final Groundwater and Surface Water Monitoring Report and Quality Control Summary Report March 1998 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Chemical Data Acquisition Plan Addendum for the 1997, 1998 and 1999 Groundwater and Surface Water Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Site Health and Safety Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Sept 1997, Quality Control Summary Report for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Background Samples

Burns & McDonnell Engineers-Architects-Consultants, Aug 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment B Quality Assurance Project Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment A Field Sampling Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment C Site Safety and Health Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment D Quality Control Plan

Burns & McDonnell Engineers-Architects-Consultants, Dec 1996, Groundwater and Surface Water Monitoring Report October 1996 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Sept 1996, (Final) Groundwater and Surface Water Monitoring Report December 1995 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Apr 1996, Quality Control Summary Report Groundwater and Surface Water Monitoring Report December 1995 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Dec 1995, Chemical Data Acquisition Plan for the Groundwater and Surface Water Sampling Program 1995, 1996, and 1997

Burns & McDonnell Engineers-Architects-Consultants, Apr 1995, Groundwater Monitoring Report October 1994 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Site Safety and Health Plan Groundwater Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Chemical Data Acquisition Plan Groundwater Sampling Program

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volumes 1 through 7

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

USED SOLVENT TANK UST NEAR BLDG 487-1

SITE DESCRIPTION

The source for the contamination at this site was underground tanks containing tetrachloroethylene (PCE) and other solvents located at the Dry Cleaning Shop inside the old United States Disciplinary Barracks located on McPherson Avenue. The location of the shop was along the west side of the prison about 100 meters north of the south wall. The tanks were located in the grass-covered area between the Dry Cleaning Shop, Building 487, and Maintenance Shop, Building 468.

The site is normally referred to as FTL-15 for convenience, since each of the six tanks at this location was assigned a tracking number. The tank location was on the eastside of the Dry Cleaning Shop in a grass-covered area about 50 feet wide and 250 feet long. There is an eight feet wide and eight feet deep, below ground steam tunnel running north to south along the entire distance of the site which makes work at this site difficult.

The FTL numbers and KDHE tank registration numbers for each tank were: FTL-15=23462U036, FTL-16=23462U037, FTL-17=23462U038, FTL-18=23462U039, FTL-50=23462U043, FTL-51=23462U044.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RD, RA

Prior to 1988, KDHE issued an order directing that four known tanks at the site be removed (FTL-15, 16, 17 & 18). Records show that a removal contract for the four tanks was issued in 1988 and documentation of the removal was filed with KDHE. No other information about this contract has been located. It is known that during that work, two more tanks (FTL-50 & 51) were found. They were removed under a second contract in September 1993.

Based on the results of the sampling conducted at the time of the removal of the first four tanks, the 1989 AEHA report documented that additional testing was required. The test results were forwarded to regulatory agencies for their review and determination of the necessary corrective actions. After the last two tanks were removed, KDHE issued an administrative order, based on RCRA UST Regulations, directing the Fort to test and determine the extent of the solvent contamination. Burns and McDonnell, Inc. performed the first round of testing in April 1996. They found significant contamination in three borings and in each of the three wells that were installed. The sampling indicated contamination had reached the water table and was migrating along it. Subsequent testing in 1997 and 1998 by Burns and McDonnell, Inc. provided a better characterization of the site.

Groundwater contamination from the site is moving primarily west and north.

The 1997 Final Site Assessment and 1999 Phase 2 Site Investigation performed for this site by Burns and Mc Donnell, Inc. included analytical data from Intertek Testing Services (ITS) which was later determined by EPA to be unreliable due to fraudulent manipulation of organic data on projects not related to Ft. Leavenworth.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. ARCADIS is currently conducting an enhanced bioremediation pilot study, evaluating the contamination data from the site and gathering information that will be needed for a risk rssessment. The results of current investigations, pilot study, and risk assessment will be used in developing the corrective measures study for the site that will be used for remedy selection. Once the remedy has been selected, they will proceed with the design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Potential restrictions on the future use of this area will be based upon the selected corrective action for this site.

FTL-15

USED SOLVENT TANK UST NEAR BLDG 487-1 (PAGE 2 OF 3)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., Apr 23, 2004, Corrective Measures Study (CMS) Work Plan Addendum Draft Supplemental Soil Investigation FTL-15, Stoddard Solvent Tanks Area

ARCADIS G&M, Inc., Feb 10, 2003, Groundwater Monitoring Report - September/October 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

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ARCADIS G&M, Inc., Oct 21, 2003, Groundwater Monitoring Report - March/April 2003 Analytical Data (Attachment 1) and Final Data Quality Assessment (Attachment 2)

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 03, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Jul 25, 2003, Groundwater Monitoring Report - March/April 2003

Environmental Chemical Corporation, Jun 5, 2003, Final Sampling and Analysis Plan and Site Safety and Health Plan Long-Term Groundwater Monitoring

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., May 23, 2003, Final Pilot Test Work Plans FTL-10, Old Firefighting Training Area and FTL-15, Stoddard Solvent Tanks

Environmental Chemical Corporation, Apr 4, 2003, Final Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Mar 14, 2003, Draft Pilot Test Work Plans FTL-10, Old Firefighting Training Area and FTL-15, Stoddard Solvent Tanks

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

Environmental Chemical Corp, Jan 17, 2003, (Revised) Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I & II: Site-Specific Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Plan, Part II: Site-Specific Work Plans

Environmental Chemical Corporation, Nov 27, 2002, Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

Environmental Chemical Corporation, Nov 2002, Draft Annual GW Sampling Monitoring Report 2002 Annual Sampling Event

Environmental Chemical Corporation, October 28, 2002, Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 1-5

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Environmental Chemical Corporation, Oct 2002, Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event, Volumes 1 through 5

ARCADIS G&M, Inc., September 27, 2002, Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Environmental Chemical Corporation, June 5, 2002, Final Sampling and Analysis Plan Addendum

Environmental Chemical Corporation, Jun 2002, Final Sampling and Analysis Plan Addendum Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Apr 2002, Final Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

USED SOLVENT TANK UST NEAR BLDG 487-1 (PAGE 3 OF 3)

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Nov 2001, Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Jun 2001, ITS QA Data Comparison Report for the Site Investigation Report at the Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 2001, Final Quality Control Summary Report 2000 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Technical Memorandum Chemical Data Acquisition Plan Addendum No. 3 for the 2000 Groundwater and Surface Water Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Groundwater and Surface Water Monitoring Report September 1999 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Aug 1999, Final Technical Memorandum Chemical Data Acquisition Plan Addendum for the 1999 Groundwater and Surface Water Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Final Groundwater and Surface Water Monitoring Report and Quality Control Summary Report Mar 1998 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Draft Phase 2 Site Investigation Report for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Chemical Data Acquisition Plan Addendum for the 1997, 1998 and 1999 Groundwater and Surface Water Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Final Work Plan Addendum for the Phase 2 Site Investigation at the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Final Quality Control Plan for Phase 2 Site Investigation Report for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Site Health and Safety Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Final Site Assessment Report for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Final Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks Volume I

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Final Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks Volume II

Burns & McDonnell Engineers-Architects-Consultants, Sept 1996, Draft Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Apr 1996, Site Assessment Work Plan for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Mar 1996, Site Assessment Work Plan for the United States Disciplinary Barracks

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volumes 1 through 7

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-20
SEPTIC TANK NEAR BLDG 398

SITE DESCRIPTION

The United States Disciplinary Barracks (USDB) Greenhouse was located on Sherman Drive West Warehouse Road. The greenhouse complex consists of the greenhouse built in 1918 made with a steel frame and fiberglass panels and a boiler plant building built in 1919 constructed of brick and concrete. The greenhouse was demolished in 2001. Only the boiler plant building remains.

FTL-20 was the sewage system for the USDB Greenhouse (Building 398) and the Greenhouse Boiler Building (Building 399). The system was installed in 1919 when the buildings were constructed along the south side of the boiler building. It consisted of a tank to remove the solids and a pipe that discharged the liquid and remaining solids into the creek south of the building.

The sewage piping and tank were abandoned in place when the greenhouse was connected to the Fort's sanitary sewer system, probably in the late 1970s. The 1997 ECAS Audit recommended this site be investigated for pesticides and herbicides.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Medium
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides, VOCs, SVOCs
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RD, RA

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2006 option to the ARCADIS G&M Contract. This site was funded in March 2004 due to early availability of funds. ARCADIS is preparing a work plan for site characterization to support the development of a RCRA Facilities Investigation for the site to characterize the nature and extent of any potential contamination. The results of the RFI will be used to complete a risk assessment. If no contamination is found, closure will be requested. If contamination is found, the evaluation process will eventually result in the production of a corrective measures study for the site that will be used for remedy selection. Once the remedy has been selected they will proceed with design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Limitations on the future use of this site is will be determined by the Risk Assessment and the results of any corrective measures.

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

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Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

PESTICIDE AREA NEAR BLDG 227 (PAGE 1 OF 2)

SITE DESCRIPTION

Building 227, the current entomology shop, is located on the northwest corner of the intersection of West Warehouse Road and Organ Avenue.

The building is wood framed with brick exterior, roughly 40 x 100 feet and contains an office, pesticide mixing room, laundry room, and two storage rooms. It was constructed in 1903 as a warehouse. Asphalt paving surrounds building. East of the building is paved parking and a street. On the south is Organ Avenue. On the west is the mixing pad and paved parking for the entomology equipment. On the north is a paved connector to a parking area.

The Entomology Shop has been located in Building 227 since 1976. The site was chosen since it was a better alternative than other storage sites being used at the time. In 1989, the building was upgraded to conform to current pesticide handling practices. Previous mixing practices have resulted in residual levels of herbicides and pesticides in the soil around this building. Soil stains were observed around the building in graveled areas. A mixing pad was constructed to contain spills and direct all water/contaminants on the pad into storage tanks. Asphalt has since been placed over the gravel to help limit future soil contamination and leaching of chemicals to groundwater.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RD, RA, LTM

The 1989 AEHA report recommended this area be investigated. The subsequent O'Brien and Gere Contamination Evaluation (1994) found contaminants exceeding Kansas Action Levels (KALs), the screening criteria at the time. Note that the KALs have been replaced by Risk-Based Standards of Kansas (RSKs).

Ecology and Environment, Inc. performed a RCRA Facilities Investigation in the year 2000 and submitted the final report in October 2001. They found chemical contamination; however, when they evaluated the chemical levels of both this investigation and the original investigation against the new RSK, they found all concentrations to be below the screening levels.

Both KDHE and EPA approved the Ecology & Environment, Inc. RCRA Facilities Investigation (RFI) Report in their comment letter dated October 31, 2001. A Draft RFI Work Plan was completed by ARCADIS in spring 2004.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2004 option to the ARCADIS G&M Contract, which was funded in Jan 2004. ARCADIS is expected to use the results of the RFI to complete a risk assessment. If no contamination is found above regulatory screening levels and no unacceptable risks are present, site closure will be requested. If contamination is found, the risk assessment results will be incorporated into the Corrective Measures Study for the site that will be used for remedy selection. Once the remedy has been selected they will proceed with design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Limits on the future use of this site will be determined after the CMS is completed. There would be no limitations on future use if there is no contamination above regulatory levels.

FTL-24

PESTICIDE AREA NR BLDG 227 (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

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Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

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ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

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Ecology and Environment, Inc., Nov 2001, Final Quality Control Summary Report for Fort Leavenworth Investigations at Solid Waste Management Unit FTL-24

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United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

PAST PESTICIDE AREA NEAR BUILDING 413 (PAGE 1 OF 2)

SITE DESCRIPTION

This site is located on the old United States Disciplinary Farm along the north boundary of the Fort along the county road. The site is about 200 meters west of Building 424 that was the farm headquarters.

Building 413 was used for storage of herbicides and pesticides from at least 1970 until 1982, when it was demolished. The pad continued to be used as a mixing area until 1993 when a new building was constructed, now used as the Military Police dog kennels, to store and mix pesticides and herbicides. Wastes from the pad were channeled to a small metal lined concrete trough that ran to a 1,000-gallon concrete holding tank located north of the pad along the road. The tank was pumped regularly and the wastes taken to the Fort Leavenworth Sanitary Landfills. The tank drained into a 2 feet by 2 feet catch basin that was filled with soil during the 1988 site visit. The 1988 AEHA report recommended that the site be investigated. In 1989, the AEHA report directed that this site be investigated further. O'Brien and Gere investigated the site from 1990 to 1993. The Final Contamination Report (1994) indicated pesticides were present in the sludges in the concrete holding tank and in the soils along the drainage channel at levels exceeding the Kansas Action Levels (KALs). Based on the results, the Army decided to perform a removal action at the site. Burns and McDonnell, Inc. finalized the removal action design specifications in 1994 and an Interim Remedial Action in 1996 cleaned up the site and removed the contaminated material.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides, SVOCs
MEDIA OF CONCERN:
Surface Water, Soil
COMPLETED IRP PHASE:
PA/SI, RD, RA
FUTURE IRP PHASE:
RC

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. ARCADIS conducted additional site characterization to address data gaps (2003) and prepared a closure report. The closure report concluded that the site could be closed with no further land use restriction. The Statement of Basis (i.e. Decision Document) will be made available for public review and comment in summer 2004.

SITE USE LIMITATIONS/LAND USE CONTROLS

Clean closure of this site will allow unrestricted use of this site. There will be no limitations.

FTL-30

PAST PESTICIDE AREA NEAR BUILDING 413 (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., Feb 3, 2003, Final (Revision 1) Closure Report FTL-30, Past Pesticide Area

ARCADIS G&M, Inc., Nov 25, 2003, Final Closure Report FTL-30, Past Pesticide Area

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 28, 2003, Confirmatory Sampling Work Plan FTL-30, Past Pesticide Area

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., April 4, 2003, Draft Closure Report FTL-30, Past Pesticide Area

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ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

ARCADIS G&M, Inc., September 27, 2002, Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, May 1995, Final Design Specifications Contract NO. DACW41-94-D-9002 Removal Action Old Pesticide Area Fiscal Year 1995

Burns & McDonnell Engineers-Architects-Consultants, May 1995, Final Design Analysis Contract NO. DACW41-94-D-9002 Removal Action Old Pesticide Area Fiscal Year 1995

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Work Plan Removal Action Design Old Pesticide Area

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volumes 1 through 7

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-57

SKEET RANGE (INACTIVE) (PAGE 1 0F 3)

SITE DESCRIPTION

This site is located inside the levee north of the aircraft-parking ramp. The site is bounded by Chief Joseph Loop road on the west, open field and the levee on the north, and runway on the east. This site is approximately 800 x 560 feet. The site is now a grass field.

This site was not reported in the 1988 AEHA Study. It was identified in 1992 as being eligible for the IRP and was added to the Action Plan. The range opened in 1942 and closed in August 1988 when the Skeet Club moved to their new facility. OMA funds were programmed and received for the 1993 site investigation work. Law Engineering and Environmental Services submitted the Final Contamination Evaluation Report in 1996. The investigation found lead and PAHs in the soils at concentrations significantly exceeding the KALs and risk-based screening levels. IRP funds were used for the Engineering Evaluation and Cost Analysis (EE/CA) which was performed by Burns & McDonnell, Inc. The final EE/CA report was issued in March 2002.

Both KDHE and EPA conditionally approved the Burns & McDonnell, Inc. EE/CA Report in their comment letter dated April 23, 2002.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Medium
CONTAMINANTS OF CONCERN:
Metals, SVOCs, PAHs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RD, RA

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2006 option to the ARCADIS G&M Contract. Once the option is executed, ARCADIS G&M personnel will start an evaluation of the site. They are expected to use the results of the Contamination Evaluation and EE/CA to complete a risk assessment. The risk assessment results will be incorporated into the corrective measures study for the site that will be used for remedy selection. Once the remedy has been selected they will proceed with design and implementation.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained at the Former Skeet Range.

FTL-57
SKEET RANGE (INACTIVE) (PAGE 2 0F 3)

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

Environmental Chemical Corporation, Jun 5, 2003, Final Sampling and Analysis Plan and Site Safety and Health Plan Long-Term Groundwater Monitoring

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

Environmental Chemical Corporation, Apr 4, 2003, Final Annual Groundwater Monitoring Report 2002 Annual Sampling

Ecology and Environment, Inc., Apr 1, 2003, Firing Ranges and Associated Facilities

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

Environmental Chemical Corp, Jan 17, 2003, (Revised) Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Plan, Part II: Site-Specific Work Plans

Environmental Chemical Corporation, Nov 27, 2002, Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

Environmental Chemical Corporation, Nov 2002, Draft Annual Groundwater Sampling Monitoring Report 2002 Annual Sampling Event

Environmental Chemical Corporation, October 28, 2002, Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 1-5

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Environmental Chemical Corporation, Oct 2002, Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event, Volumes 1 through 5

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Environmental Chemical Corporation, June 5, 2002, Final Sampling and Analysis Plan Addendum

Environmental Chemical Corporation, Jun 2002, Final Sampling and Analysis Plan Addendum Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Apr 2002, Final Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Burns & McDonnell Engineers-Architects-Consultants, Mar 2002, Final Engineering Evaluation/Cost Analysis for FTL-57 Former Skeet Range

Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Nov 2001, Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Jul 2001, Draft Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Jun 2001, Draft Engineering Evaluation/Cost Analysis for FTL-57 Former Skeet Range

Burns & McDonnell Engineers-Architects-Consultants, Feb 2001, Final Quality Control Summary Report 2000 Groundwater and Surface Water Monitoring Event

SKEET RANGE (INACTIVE) (PAGE 3 0F 3)

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Technical Memorandum Chemical Data Acquisition Plan Addendum No. 3 for the 2000 Groundwater and Surface Water Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Groundwater and Surface Water Monitoring Report September 1999 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, May 2000, (Draft) Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Final Groundwater and Surface Water Monitoring Report and Quality Control Summary Report March 1998 Sampling Event

Waterways Experiment Station, Feb 1998, Final Draft Laboratory Investigation of Physical Separation and Chemical Extraction Treatment Alternatives for Soils Collected from the Old Skeet Range Located

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Chemical Data Acquisition Plan Addendum for the 1997, 1998 and 1999 Groundwater and Surface Water Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Site Health and Safety Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Sept 1997, Quality Control Summary Report for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Background Samples

Burns & McDonnell Engineers-Architects-Consultants, Aug 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment B Quality Assurance Project Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment A Field Sampling Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment C Site Safety and Health Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment D Quality Control Plan

Burns & McDonnell Engineers-Architects-Consultants, Dec 1996, Groundwater and Surface Water Monitoring Report October 1996 Sampling Event

Law Engineering and Environmental Services, Sept 1996, Final Contamination Evaluation Report for Old Skeet Range

Burns & McDonnell Engineers-Architects-Consultants, Dec 1995, Chemical Data Acquisition Plan for the Groundwater and Surface Water Sampling Program 1995, 1996, and 1997

Law Engineering and Environmental Services, Oct 1994, Final Work Plans Volumes I & II for Contamination Evaluation for Old Skeet Range

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units- Final Report Volumes 1 through 7

FTL-60
USDB GREENHOUSE

SITE DESCRIPTION

The United States Disciplinary Barracks (USDB) Greenhouse was located on Sherman Drive west of the hangar at Sherman Army Airfield. The greenhouse area consisted of the greenhouse built in 1918 made with a steel frame and fiberglass panels and a boiler plant building (Bldg. 399) built in 1919 constructed of brick and concrete. The greenhouse was demolished in 2001 due to glass support system structural problems. This site consists of the area where drums were discovered near the USDB Greenhouse Boiler Building.

During an installation tour in 1988, EPA representatives discovered three overturned drums south of the USDB Greenhouse Boiler Building. Installation personnel investigated the site and found that the drums had contained methylene chloride that had been used to strip paint from furniture. The drums and about 23 cubic feet of contaminated soil were removed from the site immediately after discovery. The empty drums and contaminated soil were stored awaiting testing results and were shipped off the Fort as hazardous waste in 1992. The 1989 Facilities Assessment resulted in EPA directing further investigation of this site. O'Brien and Gere Engineers, Inc. studied the site from 1990 to 1993. They did not find any traces of the solvents, but did find pesticides above KALs in use at that time.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
VOCs, Pesticides
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RC

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2006 option to the ARCADIS G&M contract. This site was funded in March 2004 due to early availability of funds. ARCADIS is preparing a Closure Report, documenting the previous removal action and confirmatory sampling results.

SITE USE LIMITATIONS/LAND USE CONTROLS

The results of the Risk Assessment will determine limitations on the future use of this site.

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific SWMU - Final Report Volumes 1 through 7

FTL-65

POND IN FAMILY HOUSING (PAGE 1 OF 2)

SITE DESCRIPTION

This pond is located at the south end of Hunt Road in the southwest corner of the Fort. The pond is very near the south property line that separates the Fort from the Federal Penitentiary at Leavenworth. There are houses near the northwest side of the pond. The pond is less than one acre in size, but with the surrounding area is about 3 acres in total area.

George Butler Associates, while investigating the contamination at the Federal Penitentiary property in the early 1990s, found PCB in one fish tissue sample. The pond was subsequently closed to fishing and other recreational uses. The source of the contamination is unknown. The 1997 site investigation was directed towards finding the source of the contamination in the drainage ditches flowing into it. The study by Burns and McDonnell, Inc. found contamination on the railroad grade south of the pond, but not in the waterways to the pond.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Metals, PCBs, SVOCs, VOCs, PAHs
MEDIA OF CONCERN:
Surface Water, Sediment, Soil
COMPLETED IRP PHASE:
PA/SI, RI
CURRENT IRP PHASE: FS (SoB)
FUTURE IRP PHASE:
RC

Based on the data collected during the Hazardous Waste Investigation and the Site Investigation, a work plan was developed by Burns and McDonnell to address the collection of additional data necessary to conduct a risk assessment at FTL-65. Fieldwork for this effort, comprised of collecting 10 surface water samples and sediment samples, was conducted in October 2000. No SVOCs, pesticides, or PCBs were detected in the surface water samples. No PAHs were detected at levels that exceeded the surface water screening criteria used, although two PAHs were present at levels that exceeded RBCs for tap water. Arsenic was the only metal detected that exceeded the surface water screening criteria used. Sediment samples were analyzed for SVOCs, pesticides, PCBs, and RCRA metals. No pesticides or PCBs were detected. Arsenic was the only metal detected in the sediments at a level exceeding its screening criterion. The plan was to also investigate and test the fish in the pond for bio-accumulated chemicals, but no fish were found.

This site became part of the Guaranteed Fixed-Price Remediation (GFPR) Contract with ARCADIS G&M in 2002. ARCADIS completed additional site characterization activities (2002) including sediment sampling, surface water sampling and surface soil sampling.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The GFPR Contract funded all work on this site through closure. Based on additional site characterization activities, ARCADIS prepared a baseline risk assessment and RFI report. The RFI report, which was finalized in 2003, recommended No Further Action for this site. The Statement of Basis (i.e. Decision Document) will be made available for public review and comment in summer 2004.

SITE USE LIMITATIONS/LAND USE CONTROLS

Based on the risk assessment, there will be no limitations on future use of this site.

FTL-65
POND IN FAMILY HOUSING (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

ARCADIS G&M, Inc., Oct 31, 2003, Final (Revision 1) RFI Addendum FTL-65, Pond in Family Housing Area

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Sept 30, 2003, Final RFI Addendum FTL-65, Pond in Family Housing Area

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., Mar 28, 2003, Draft RFI Addendum FTL-65, Pond in Family Housing Area

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I & II: Site-Specific Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Plan, Part II: Site-Specific Work Plans

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

ARCADIS G&M, Inc., September 27, 2002, Draft RCRA Corrective Action Work Plan Part II: Site-Specific Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Burns & McDonnell Engineers-Architects-Consultants, Mar 2002, Final Human Health Risk Assessment for the Pond in Family Housing (FTL-65)

Burns & McDonnell Engineers-Architects-Consultants, Mar 2002, Final Quality Control Summary Report 2000 Risk Assessment for the Pond in Family Housing (FTL-65)

Burns & McDonnell Engineers-Architects-Consultants, May 2001, Quality Control Summary Report 2000 Risk Assessment for the Pond in Family Housing (FTL-65)

Burns & McDonnell Engineers-Architects-Consultants, Sept 2000, Final Work Plan Addendum for the Risk Assessment for the Pond in Family Housing (FTL-65)

Burns & McDonnell Engineers-Architects-Consultants, Jun 1999, Draft Work Plan Addendum for the Risk Assessment for the Pond in Family Housing (FTL-65)

Burns & McDonnell Engineers-Architects-Consultants, Aug 1998, Final Site Investigation Report for FTL-65 Pond and Drainages

Burns & McDonnell Engineers-Architects-Consultants, Sept 1997, Quality Control Summary Report for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Background Samples

Burns & McDonnell Engineers-Architects-Consultants, Aug 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment B Quality Assurance Project Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment A Field Sampling Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment C Site Safety and Health Plan

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigations (2) Six Sites Attachment D Quality Control Plan

FTL-69
DIESEL FUEL SPILL AREA

SITE DESCRIPTION

FTL-69 is to the south and under former Bldg 139. Building 139 was located on elevated ground on the northeast corner of the levee. Traveling Chief Joseph's Loop Road, located on top of the levee, accesses the site. The entire site is approximately 4 acres in size. The area of concern was approximately 60 meters square.

Building 139 was constructed in the late 1950s to house diesel generators that supplied backup power to Building 138, a radio transmitter facility. A 30,000-gallon underground diesel storage tank was installed when the facility was built. The facility was used until the early 1970s when the tank was abandoned in place. The generators were removed and the building converted to a computer development center in 1982. The tank was removed in July 1991 as part of a UST removal contract. Clean closure of the tank site was obtained. The facility served as a reserve center until 1998.

The building was demolished in February 1999. During the demolition, the contractor found soil that demonstrated a diesel fuel odor. Subsequent testing confirmed that selected soils had a detectable TPH content.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
VOCs, SVOCs, TPH, PAHs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI
FUTURE IRP PHASE:
RC

Ecology and Environment, Inc. performed and reported a Final Facilities Investigation at the site in October 2001 as part of the FTL-10 investigation. They found PAHs in deep soils beneath the area of the former Building 139 floor slab. No groundwater samples have been collected in the immediate area of either the floor slab or the former UST location to the south of it.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2006 option to the ARCADIS G&M Contract. Once the option is executed, ARCADIS G&M personnel will start an evaluation of the site.

SITE USE LIMITATIONS/LAND USE CONTROLS

No limitations on the future use of this site are expected.

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Ecology and Environment, Inc., Oct 2001, Final Initial RCRA Facility Investigation for Solid Waste Management Unit FTL-69

FTL-70

FUEL OIL LEAK SITE AT USDB

SITE DESCRIPTION

This site of approximately 1.4 acres is located north of the US Disciplinary Barracks Boiler Plant. The boiler plant is located on the northwest corner of the facility. The north end of this site, which is north of the confinement wall, was the outdoor recreation area for the prisoners. The area immediately around the boiler plant building is a paved driveway.

The area of this site north of the wall was used for fuel oil storage since the boiler plant was built in the 1910s until the late 1980s. Numerous tanks have been sited at this location including a wooden staved oil tank (removed in the 1930s), six 20,000-gallon aboveground tanks (removed by 1970), and a 168,000-gallon aboveground oil tank (stopped operation in the late 1980s and was removed in 1999). All tanks stored No. 6 fuel oil that was the backup fuel for the boiler plant. During removal of the 168,000-gallon tank, contamination was found under the slab supporting the tank.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
SVOCs, PAHs, TPH
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE: PA
CURRENT IRP PHASE:
RI
FUTURE IRP PHASE:
RD, RA

The piping between the tanks and boiler plant was replaced in 1979 because of the poor condition of the pipes. Due to the number of tanks on the site and the problems with the broken piping, there is the potential for fuel oil contamination at this site.

There were also three 20,000-gallon USTs at this site. They were installed in 1979 to add additional storage capacity. These tanks stored No. 6 fuel oil that was the backup fuel for the boiler plant. The USTs ceased operations in the late 1980s and were removed in about 1995. These three tanks were closed clean.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2006 option to the ARCADIS G&M Contract. This site was funded in March 2004 due to early availability of funds. ARCADIS is preparing a Work Plan for site characterization to support the development of a RFI for the site to determine the extent of fuel contamination, if any, at the site. If no contamination is found above regulatory screening levels, site closure will be requested. If contamination is found, a risk assessment will be conducted to determine the need for corrective measures.

SITE USE LIMITATIONS/LAND USE CONTROLS

No limitations on the future use of this site are expected.

FTL-70

FUEL OIL LEAK SITE AT USDB (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

U.S. Army Corps of Engineers Kansas City District, Aug 1999, Directorate of Contracting DABT19-99-R-0002 Remove and Dispose of Aboveground Storage Tank

MCCLELLAN AVENUE MAINTENANCE SITE

SITE DESCRIPTION

This site is comprised of the hill and valleys on either side of McClellan Avenue on the north end of the installation.

This site was placed into the program after carbon tetrachloride was found at the west edge of FTL-15, which is just east of the site. Since the carbon tetrachloride had not been found in any other samples from FTL-15, it was assumed that this material came from a different source. The source is expected to be found somewhere along McClellan Avenue, which is hydraulically upgradient from the location where the carbon tetrachloride was detected. Past activities in this area included a maintenance shop, vehicle maintenance facility and veterinary clinic. Building 85, which is currently the main administrative building for the Directorate of Installation Support, is reported to have been a vehicle maintenance shop at one time. Building 86, which was a riding arena, is currently a vehicle maintenance facility. Building 88 has been a Veterinarian Clinic since it was built in the early 1900s. Fire Station Number 1 is located at the south end of this area. Carbon tetrachloride was historically used in early chemical fire extinguishers.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: Low
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE: PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RD, RA

Due to the location of these buildings at the crest of the hill, the presumption is that the contamination has possibly migrated down the west slope. If this is proven true, this will lead the investigation into the installation facilities maintenance shop area.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

This site is part of the Fiscal Year 2004 option to the ARCADIS G&M Contract which was funded in Jan 2004. ARCADIS is preparing a Work Plan for a site investigation to determine the potential source(s) and extent of carbon tetrachloride in the vicinity of McClellan Avenue. If no contamination is found above regulatory screening levels, site closure will be requested. If contamination is found, a risk assessment will be conducted to determine the need for corrective measures.

SITE USE LIMITATIONS/LAND USE CONTROLS

No limitations on the future use of this site are expected.

FTL-71

MCCLELLAN AVENUE MAINTENANCE SITE (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

KDHE, Oct 29, 2003, Quarterly Report (July - September 2003) for DSMOA

ARCADIS G&M, Inc., Oct 3, 2003, Final Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., Aug 22, 2003, Draft Characterization of Background Levels of Metals in Soil & Groundwater Tech Memo

ARCADIS G&M, Inc., May 30, 2003, Background Soil Sampling Work Plan

ARCADIS G&M, Inc., Mar 4, 2003, Draft Characterization of Ambient Metals in Soil and Groundwater Technical Memo

ARCADIS G&M, Inc., Dec 20, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Arcadis G&M, Dec 2002, Final RCRA Corrective Action Work Plan, Part I: Site-Wide Work Plan

ARCADIS G&M, Inc., October 22, 2002, Final RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

ARCADIS G&M, Inc., August 22, 2002, Draft RCRA Corrective Action Work Plan Part I: Site-Wide Work Plans

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

OMA
SITE DESCRIPTIONS

CLOSED ACTIVE SANITARY LANDFILL

SITE DESCRIPTION

This landfill is accessible from Sheridan Drive. The north and east side boundaries of the site are an access road. A small wooded area separates the landfill from North Warehouse Road, which runs to the north and northwest of the site. To the south is the Prisoner Cemetery. To the west is the operational Construction Demolition Landfill. This landfill is approximately 10 acres in size and has a native grass cover.

The landfill started receiving wastes in 1977 and was closed in 1992. In 1989, the EPA Facilities Assessment indicated no additional investigation was required. However, the site was included in the Fort-wide investigation that started in 1990 and concluded in 1993. It found SVOCs hot spots and metals above the Kansas Action Levels in the fill. Landfill operations stopped in September 1992 and the landfill was covered with a minimum of 24 inches of earthen material that has a permeability less than or equal to the permeability of the natural subsoils or the permeability no greater than 1 x 10^{-7} cm/sec or less in 1993. Annual sampling of the monitoring wells at this site began in 1995 to gain a better understanding of identified contaminants. Annual KDHE inspections have found that the landfill cover has eroded, the discharge structure had collapsed, the runoff contained contaminants above the action levels, and corrective action was needed. They issued a Notice of Violation on December 27, 1996 requiring the landfill cover and discharge structure to be repaired. They also directed that annual testing of the water in the monitoring wells and water draining off the fill be implemented and continue for 30 years.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Action
RRSE RATING: High
CONTAMINANTS OF CONCERN:
SVOC, Metals, VOCs
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED PHASE:
PA/SI, RD, RA
CURRENT PHASE: LTM
FUTURE PHASE: RC

The first remedial action to repair the landfill cover began in December 1997 and was completed by the Spring of 1998. Water testing began in April 1998. The cover was again repaired in the spring of 1999, but the grass was killed by the long dry spell that summer. The landfill was reseeded again in the spring and fall of 2000 with cool season grasses. This resulted in a good stand of grass with only minor problem areas. During the Fall of 2002, Ecology & Environment, Inc. (E&E) performed necessary repair work to the landfill cover at site. E&E mowed and filled the erosion gully area located in the lower gradient portion of the landfill with soil, trimmed small tree growth near the rock let down structure, applied and graded additional gravel on existing adjacent service road, and placed erosion control socks in lower gradient portion of the landfill. The landfill was reseeded and an irrigation system was installed 2003. In spring 2004, the eroded area was sodded and the whole landfill was reseeded with native grass seed.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

Fort Leavenworth plans to contract with E&E to produce the documentation for closure. Additional samples will be taken in FY05. This will involve reviewing available documents regarding the capping of the site and producing documentation for closure.

Maintenance operations on this site will consist of maintaining good ground cover, especially in the drainage area. Other maintenance will be required to ensure that the cover remains in place.

SITE USE LIMITATIONS/LAND USE CONTROLS

Future use of this site is expected to be limited to activities that do not disturb the materials contained in the landfill or the cover materials. Only those activities that do not cause damage will be allowed. Land use controls prohibiting activities that would damage the cap are required by the regulatory agencies.

CLOSED ACTIVE SANITARY LANDFILL (PAGE 2 0F 3)

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Apr 20, 2003, Letter Report for FTL-09 Landfill Maintenance Activities

Ecology and Environment, Inc., Oct 15, 2003, Draft Groundwater and Surface Water Monitoring Report for FTL-09, Inactive Landfill, June 2003 Sampling Event for OMA Support

Environmental Chemical Corporation, Jun 5, 2003, Final Sampling and Analysis Plan and Site Safety and Health Plan Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Apr 4, 2003, Final Annual Groundwater Monitoring Report 2002 Annual Sampling

Environmental Chemical Corp, Jan 17, 2003, (Revised) Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

Ecology and Environment, Inc., Jan 10, 2003, Draft Letter Report for Activities at FTL-09 Landfill OMA Support

Ecology and Environment, Inc., Jan 2003, Draft Letter Report for Activities at FTL-09 Landfill

Environmental Chemical Corporation, Nov 27, 2002, Draft Annual Groundwater Monitoring Report 2002 Annual Sampling

Environmental Chemical Corporation, Nov 2002, Draft Annual Groundwater Sampling Monitoring Report 2002 Annual Sampling Event

Environmental Chemical Corporation, October 28, 2002, Final Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event Volume 1-5

Environmental Chemical Corporation, Oct 2002, Fort Leavenworth Groundwater Monitoring Final Quality Control Summary Report Second Quarter 2002 Annual Sampling Event, Volumes 1 through 5

Environmental Chemical Corporation, Jun 2002, Final Sampling and Analysis Plan Addendum Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, June 5, 2002, Final Sampling and Analysis Plan Addendum

Environmental Chemical Corporation, Apr 2002, Final Sampling and Analysis Plan Part I - Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Environmental Chemical Corporation, Jan 2002, Draft Sampling and Analysis Plan Part I – Field Sampling Plan Part II - Quality Assurance Project Plan Site Safety and Health Plan, Long-Term Groundwater Monitoring

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Nov 2001, Final Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Mar 2001, Draft Groundwater and Surface Water Monitoring Report November/December 2000 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Feb 2001, Final Quality Control Summary Report 2000 Groundwater and Surface Water Monitoring Event at

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Technical Memorandum Chemical Data Acquisition Plan Addendum No. 3 for the 2000 Groundwater and Surface Water Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Groundwater and Surface Water Monitoring Report September 1999 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Nov 2000, Final Quality Control Summary Report 1999 Groundwater and Surface Water Monitoring Event

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Final Groundwater and Surface Water Monitoring Report and Quality Control Summary Report March 1998 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Quality Control Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Chemical Data Acquisition Plan Addendum for the 1997, 1998 and 1999 Groundwater and Surface Water Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Quality Control Plan Annual Monitoring Program

CLOSED ACTIVE SANITARY LANDFILL (PAGE 3 0F 3)

Burns & McDonnell Engineers-Architects-Consultants, Nov 1997, Site Health and Safety Plan Annual Monitoring Program

Burns & McDonnell Engineers-Architects-Consultants, Dec 1996, Groundwater and Surface Water Monitoring Report October 1996 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Sept 1996, (Final) Groundwater and Surface Water Monitoring Report December 1995 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Apr 1996, Quality Control Summary Report Groundwater and Surface Water Monitoring Report December 1995 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Dec 1995, Chemical Data Acquisition Plan for the Groundwater and Surface Water Sampling Program 1995, 1996, and 1997

Burns & McDonnell Engineers-Architects-Consultants, Apr 1995, Groundwater Monitoring Report October 1994 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Site Safety and Health Plan Groundwater Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Chemical Data Acquisition Plan Groundwater Sampling Program

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volumes 1 through 7

Kansas City District, Corps of Engineers, Nov 1992, Draft Report Closure Plan Sanitary Landfill (Sheridan Drive Site)

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

USAEHA, Mar 1986, Groundwater Potential Contamination Survey No. 38-26-0916-86

USAEHA, Nov 1984, Evaluation of Solid Waste Disposal Practices and Facilities June 4-8, 1984

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

USAEHA, July 21, 1980, Landfill Design and Permit Application

USED OIL TANK AST NEAR BUILDING 305

SITE DESCRIPTION

This site is found by going to West Warehouse Road and then to Bldg 305, which is the Fort Leavenworth Recycling Center. The tank was located at the base of the retaining wall located to the northwest of the northwest corner of the building. The tank was placed directly on the soil with no containment structure for spills.

Bldg 305 was constructed in 1908 and was the Directorate of Engineering and Housing (DEH) heavy equipment maintenance shop for many years. The riveted steel tank may have been a pressure vessel before being placed there in 1972 to store waste oil from the maintenance operation. The primary concern about the site was the tank placement directly on the ground with no containment. In 1989, the EPA Draft Facilities Assessment recommended that better work practices be established at this site. This site was not one of the sites studied in the 1990 through 1993 multi-site study.

The tank was used until 1991 when the maintenance operation closed. The building was converted to a Recycling Center in 1992. An UST contractor removed the tank in 1995 as part of a multi-tank project.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Measures
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Metals, SVOCs, PAHs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED PHASE: PA
CURRENT PHASE:
RI/FS
FUTURE PHASE:
IRA

The soil at the tank location was tested for contamination in the fall of 2000 by Stevens and Associates, Inc. They found total petroleum hydrocarbons (TPH), but at concentrations below the KDHE risk-based standards (RSKs). Two SVOCs were detected in soils above EPA and KDHE risk levels. KDHE/EPA disapproved the report on this investigation. In their comments dated June 3, 2002, on this report, KDHE/EPA requested that detections also be screened against EPA Region IX Preliminary Remediation Goals (PRGs).

E&E has used the most current industrial PRGs to screen the data, as well as the revised KDHE nonresidential RSKs criteria. TPH detections were below their RSKs and no PRGs exist for TPH. No VOCs or metals exceeded either their Region IX PRGs or RSKs. The following SVOCs exceeded both their Region IX PRGs and RSKs in one or more samples: benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. Additionally, benzo(a)anthracene exceeded its PRG and chrysene exceeded its RSK. KDHE/EPA also commented that even if the waste oil storage tank was not a source of polynuclear aromatic hydrocarbons (PAHs), the extent of the elevated PAH levels must be defined and the need for a corrective action assessed. KDHE/EPA recommended that samples be collected for ethylene glycol and propylene glycol analysis because historically these compounds have been disposed of in waste oil tanks.

E&E completed an evaulation of the site in 2003. PAHs were detected in soil above KDHE and USEPA's screening levels. A RFI was completed including a site specific risk evaluation (expected to be final in summer 2004).

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

No unacceptable risk was found under the industrial use scenario, however, an IRA may be performed to allow unrestricted use of this site. Once the scope of the IRA has been agreed upon, E&E will proceed with design and implementation of the remedy to close out the site.

SITE USE LIMITATIONS/LAND USE CONTROLS

Until the site is remediated or closed, no activity disturbing the soil can be permitted. The CMS or recommendation for closure will require installation input and a public review period to gauge the affect that proposed activities would have. Once the site has been closed, it is anticipated that there will be no restrictions on the use of this site.

USED OIL TANK AST NEAR BUILDING 305 (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Oct 27, 2003, Preliminary Draft RCRA Facility Investigation for SMWU

Ecology and Environment, Inc., Mar 13, 2003, (Final) Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

Ecology and Environment, Inc., Mar 13, 2003, (Final) Quality Control Plan Supplement IRP and OMA Program Support

Ecology and Environment, Inc., Nov 27, 2002, Draft Quality Control Plan Supplement OMA Program Support

Ecology and Environment, Inc., Nov 27, 2002, Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

Ecology and Environment, Inc., June 2000, revised Nov 2002 (Final) Quality Control Plan Installation Restoration Program Support

Ecology and Environment, Inc., Jun 2000, revised Nov 2002, Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Stevens and Associates, Inc., Mar 2001, Subsurface Investigation at Waste Oil Storage Tank Area North of Building 305

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

USED OIL TANK UST NEAR BUILDING 689

SITE DESCRIPTION

This site is located off Kansas Avenue at the Post Exchange Service Station, Building 689. The old used oil tank was located at the same location of the existing tank. The existing tank is located on the north side of the Service Station under the pavement on the west end.

The 1,000-gallon used oil tank encompassed by this site was installed in 1975 when the Service Station was built. The tank contained waste oil and other automobile fluids (i.e., brake fluid, transmission fluid, gear lube, etc.) and was registered with KDHE as Tank 23462U029. The 1989 EPA Facilities Assessment directed that a sampling plan for this site be prepared with EPA concurrence to ensure that the extent of contamination was determined. However, the 1990 through 1993 Fort-wide survey did not study this tank.

This steel constructed tank was removed in 1991 and replaced by a new double-wall, fiberglass tank in 1991 as part of the installation underground storage tank upgrade program. The removal contractor, Total Environmental Services and Technologies, did not find any contamination above regulatory levels when the tank was removed. However, while the sampling protocol for the site adhered to KDHE requirements for UST closure testing, the removal of the original tank was not coordinated with EPA. The tank replacement contract closed this site clean in 1990.

There is no current standard for the total petroleum hydrocarbons (TPH) because the KDHE RSKs have established separate total petroleum hydrocarbons-gasoline range organics (organic analysis 1) (TPH-GRO (OA1)) and total petroleum hydrocarbons-diesel range organics (organic analysis 2) (TPH-DRO (OA2)) standards. While direct comparison to the new standards is not possible, it should be noted that the results from the closure samples are less than the action levels for either component TPH analyses now stipulated. The previous TPH method covers all of the range of OA2 and most of the range of OA1 (which covers primarily lighter hydrocarbons unlikely to be found in waste oil), as well as including an additional heavier range of hydrocarbons. If the total TPH value is less than the action limits for either subset, it is logical to conclude that the component levels are also below action limits.

In 2003, E&E evaluated the site. Groundwater samples were collected from the existing wells. No contaminants were detected above the KDHE and USEPA's screening levels.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Measures
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Metals, VOCs, SVOCs, TPH
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED PHASE: PA
CURRENT PHASE:
RI/FS (SoB)
FUTURE PHASE:
RC

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The Statement of Basis (i.e. Decision Document) will be made available for public review and comment in 2004. This will remove FTL-13 from the RCRA Part 2 permit, however, since there is a new UST at the site it will continue to be regulated under the KDHE USTs program.

SITE USE LIMITATIONS/LAND USE CONTROLS

The site is still being used for its original purpose, the storage of used oil. It is anticipated that there will be no restrictions on the use of this site upon closure.

USED OIL TANK UST NEAR BUILDING 689 (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Dec 11, 2003, Final RCRA Facility Investigation for Solid Waste Management Unit

Ecology and Environment, Inc., Oct 14, 2003, Draft RCRA Facility Investigation for Solid Waste Management Unit

Engineering-Environmental Management, Inc., Sept 13, 2003, Preliminary Draft RCRA Facility Investigation for Solid Waste Management Unit FTL-13

Ecology and Environment, Inc., Mar 13, 2003, (Final) Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

Ecology and Environment, Inc., Mar 13, 2003, (Final) Quality Control Plan Supplement IRP and OMA Program Support

Ecology and Environment, Inc., Nov 27, 2002, Draft Quality Control Plan Supplement OMA Program Support

Ecology and Environment, Inc., Nov 27, 2002, Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

Ecology and Environment, Inc., Jun 2000, revised November 27, 2002 (Final) Quality Control Plan Installation Restoration Program Support

Ecology and Environment, Inc., Jun 2000, revised November 27, 2002, Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-23
MINERAL SETTLING LAGOONS

SITE DESCRIPTION

The mineral settling lagoons or Lime Sludge Lagoons as they are commonly known, are located in the southwest corner of Sherman Army Airfield. The lagoons can be accessed by traveling Riverside Drive down to the southern most railroad crossing and heading east towards the picnic area.

The two lagoons each have dimensions measuring 33 x 436 x 8 feet deep. The lagoons were constructed to contain the lime sludge coming from the water treatment plant. The sludge is a result of the plant's water softening process. The influent sludge settled in the lagoons and the resultant clean water was discharged to the waterway that eventually joins with Quarry Creek a few hundred feet before it discharges into the Missouri River. A filter press was installed in about 1991 to remove the sludge and send the resulting water to the sanitary sewer system. The lagoons are used for emergency backup only.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Metals
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED PHASE: PA/SI
CURRENT PHASE:
RI/FS
FUTURE PHASE:
RC

The lagoons were constructed in the early 1970s to remove the lime sludge that was going directly into the Missouri River in compliance with NPDES standards. The 1988 THAMA SWMU report and 1989 EPA Facilities Assessment both recommended this site be investigated further. The site investigation began in 1990 and completed in 1993. Barium was the only contaminant found above a regulatory level in the sludge. It exceeded Kansas Action Levels.

The Facilities Assessment documented a spill from the site in January 1982. The dike eroded from around the discharge pipe allowing about one fourth of the sludge in the lagoon to flow into the waterway. This material was dredged from the site, spread on USDB Farm land, and incorporated into the soil with KDHE approval.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

Funding for investigation of this site was requested in spring 2004. No significant contamination is expected to be found.

SITE USE LIMITATIONS/LAND USE CONTROLS

This site is active and therefore land use controls are not applicable at this time.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

O'Brien & Gere Engineers, Inc., Jan 1994, Contamination Evaluation of Specific Solid Waste Management Units - Final Report Volumes 1-7

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-63

DRMO SCRAP YARD (PAGE 1 OF 2)

SITE DESCRIPTION

The DRMO Scrap Yard is located at the far north end of West Warehouse Road. The yard is in the fenced area north of Building 280. A seasonal creek bounds the yard on the north and east sides. Wooden sheds occupy the area to the south. To the west is a gravel road on the old Government Railroad right-of-way.

The buildings at the south side of this site were built in 1907 as wagon sheds and probably, during World War I, served as storage areas for bridging pontoons. They continue to serve as warehouse space today.

The year the area began receiving scrap is unknown, but may have began prior to World War II. The yard ceased operation in 1996 and is currently vacant. The paint from metals and other materials have spilled on the ground, contaminating this site. Preliminary Assessment testing done in 1997 detected metals in surface soil.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Metals, PAHs, PCBs
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED PHASE:
PA/SI
CURRENT PHASE: RI/FS
FUTURE PHASE:
IRA/RC

Burns and McDonnell, Inc. performed a Facilities Investigation of the site in April 2001 and submitted a Final Site Investigation Report in May 2002. The investigation centered on the main area of contamination. Six soil borings were performed along with the installation of three groundwater monitoring wells. Relatively low concentrations of SVOCs and metals were detected in the sediment samples; VOCs, pesticides, herbicides, and PCBs were not detected. Relatively low concentrations of VOCs, SVOCs, and metals were detected in the surface water samples. Relatively low concentrations of SVOCs and metals were detected in the subsurface soil samples and relatively low concentrations of metals were detected in the groundwater samples.

E&E performed additional sampling in 2003. PAHs and lead were detected in soil above KDHE and USEPA's screening levels. One groundwater sample was positive for PCB above the PRG.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The final RFI report with risk evaluation is on hold until surface water impoundment is drained. It is expected to be drained in 2004. No unacceptable risk was found under the industrial use scenario, however, an IRA may be performed to allow unrestricted use of this site. Once the scope of the IRA has been agreed upon, E&E will proceed with design and implementation of the remedy to close out the site.

SITE USE LIMITATIONS/LAND USE CONTROLS

Limitations on the future use of this site will be determined by the results of the IRA and/or risk evaluation.

FTL-63
DRMO SCRAP YARD (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Jan 30, 2004, Draft RCRA Facility Investigation for SWMU

Ecology and Environment, Inc., Dec 16, 2003, Preliminary Draft RCRA Facility Investigation for SWMU

Ecology and Environment, Inc., Mar 13, 2003, (Final) Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

Ecology and Environment, Inc., Mar 13, 2003, (Final) Quality Control Plan Supplement IRP and OMA Program Support

Ecology and Environment, Inc., Nov 27, 2002, Draft Quality Control Plan Supplement OMA Program Support

Ecology and Environment, Inc., Nov 27, 2002, Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan for IRP and OMA Program Support

Ecology and Environment, Inc., Jun 2000, revised November 27, 2002 (Final) Quality Control Plan Installation Restoration Program Support

Ecology and Environment, Inc., Jun 2000, revised November 27, 2002, Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Installation Restoration Program Support

Burns & McDonnell Engineers-Architects-Consultants, May 10, 2002, Final Site Investigation Report for the DRMO Scrap Yard

Burns & McDonnell Engineers-Architects-Consultants, Apr 2002, Final Quality Control Summary Report for the DRMO Site Investigation

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Aug 2001, Draft Site Investigation Report for the DRMO Scrap Yard (FTL-63)

Burns & McDonnell Engineers-Architects-Consultants, Jul 2001, Quality Control Summary Report for the DRMO Site Investigation

Burns & McDonnell Engineers-Architects-Consultants, Apr 2001, Final Quality Assurance Project Plan for the DRMO Site Investigation

Burns & McDonnell Engineers-Architects-Consultants, Sept 2000, (Complete) Field Sampling Plan for the DRMO Site Investigation

Burns & McDonnell Engineers-Architects-Consultants, Dec 1998, Draft Field Sampling Plan for the DRMO Site Investigation

Burns & McDonnell Engineers-Architects-Consultants, Dec 1998, Draft Quality Control Plan Addendum to Work Plan for Engineering Evaluation/Cost Analysis (4) Site Investigation (2) Six Sites Attachment D Quality Control Plan for Site Investigation DRMO Scrap Yard

Burns & McDonnell Engineers-Architects-Consultants, Nov 1998, Draft Quality Assurance Project Plan for the DRMO Site Investigation

Bibb and Associates, Inc., Mar 1988, Specification for Conforming Storage Facility at DRMO

FTL-66 & FTL-001-R-01
5TH ARTILLERY ROAD FIRING RANGE

SITE DESCRIPTION

The site was the location of one or more firing ranges since the Fort was established. Historical research has confirmed that the range(s) existed. There have been no physical investigations to determine the extent of this range area. The investigation of this site will be complicated as the houses on 5th Artillery Road appear to have been built on top of the impact berm(s).

The site has been the location of firing ranges from as early as the 1880s era and was probably used until the late 1940s or early 1950s when houses were built around it. The range supported rifles to training mortars, but no exploding rounds are believed to have been used. Several people have indicated that lead bullets and inert mortar shells have been found at the site. No records have been found to document if this area was ever used for exploding munitions and no evidence of craters have been reported at the site.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Measures
CONTAMINANTS OF CONCERN:
Suspected Metals, PAHs
MEDIA OF CONCERN: Surface Water, Groundwater, Soil, Sediment
COMPLETED PHASE: PA
CURRENT PHASE:
SI
FUTURE PHASE:
RI/FS

This site was identified in 1997 when the Army requested information on all the old firing ranges on each installation. The site was identified in the 1998 Installation Action Plan; however, it was rejected by the Army Environmental Center as an IRP site since no chemical contamination had been identified.

The site was placed into the Operation and Maintenance Account Program for FY 2002. Ecology and Environment, Inc. (E&E) completed a records search in 2003 to aid in identifying the location of historical firing ranges.

This site is listed as FTL-001-R-01 under the MMRP.

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

The next action will be a geophysical investigation to identify potentially contaminated areas. A subsurface soil investigation plan will be produced based on the results of the geophysical investigation.

The proposed housing construction initiative will not use this area until it is shown that no unacceptable risk is present.

SITE USE LIMITATIONS/LAND USE CONTROLS

Land use controls will be determined after the investigation.

REMEDIATION DOCUMENTATION

Engineering-Environmental Management, Inc., Oct 3, 2003, Final Closed, Transferring, and Transferred Range Site Inventory

Engineering-Environmental Management, Inc., Jun 9, 2003, Draft Closed, Transferring, and Transferred Range Site Inventory

Ecology and Environment, Inc., Apr 1, 2003, Firing Ranges and Associated Facilities

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

WEED CONTROL AREA, CITY AIRPORT OPER

SITE DESCRIPTION

The City of Leavenworth airport operation is located along the paved section of Chief Joseph Loop Road that runs on the west side of the floodplain area next to Quarry Creek and the Union Pacific Railroad tracks. The actual buildings are at the south end of the airfield development. Their facilities consist of an enclosed hanger with a fuel tank on the east side and open hangers to the south.

This site was a 1,000-gallon, aboveground storage tank that contained 100-octane aviation fuel. It was located to the south of the road entering the area. The fuel tank was enclosed in an earthen berm. Waste oil was placed on the berm to prevent weed growth.

The site was leased to the city, probably in the 1960s. The 1989 draft RCRA EPA Facilities Assessment found that waste oil had been dumped at this site and required remediation. Black and Veach Waste Science and Technology Corporation performed the site investigation. They sampled the site in 1990 and determined the extent of the contamination. On September 18, 1990, City of Leavenworth crews removed all the questionable soil to a depth of 48 inches. The soil was taken to the City of Leavenworth Landfill. The site was closed with testing for total petroleum hydrocarbons being below KDHE action levels. The City of Leavenworth performed the Interim remedial action and provided Fort Leavenworth with a copy of the results.

E&E resubmitted (2003) the Contamination Assessment Report with a transmittal letter requesting regulatory closure. Regulators requested additional confirmatory samples. Therefore, E&E performed additional sampling in 2004, no soil contamination was detected above screening criteria.

STATUS

PROGRAM:
OMA
STATUS: RCRA Corrective Measures
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Metals, VOCs, SVOCs, TPH
MEDIA OF CONCERN:
Surface Water, Soil, Sediment
COMPLETED PHASE: PA, IRA
CURRENT PHASE:
RI/FS
FUTURE PHASE:
RC

PROPOSED PLAN

MOVING THE SITE TOWARDS CLOSURE

A SoB will be completed after the confirmation sampling report is finalized.

SITE USE LIMITATIONS/LAND USE CONTROLS

Once the regulatory agencies have approved closure of the site, there are no expected limitations on future use.

WEED CONTROL AREA, CITY AIRPORT OPER (PAGE 2 OF 2)

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., May 4, 2004, Draft FTL-68 Confirmation Sampling Report

Ecology and Environment, Inc., April 27, 2004, Preliminary Draft FTL-68 Confirmation Sampling Report

Ecology and Environment, Inc., Jan 22, 2004, Final Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Supplement IRP and OMA Program Support

Ecology and Environment, Inc., Nov 13, 2003, Preliminary Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Supplement IRP and OMA Program Support

Ecology and Environment, Inc., Nov 21, 2003, Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Supplement IRP and OMA Program Support

Ecology and Environment, Inc., Oct 7, 2003, (Final) FTL-68 Reports Evaluation

Ecology and Environment, Inc., Apr 4, 2003, (Draft) FTL-68 Reports Evaluation

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

B & V Waste Science and Technology Corp, Oct 1990, Transmitting SWMU 8 Contamination Assessment

B & V Waste Science and Technology Corp, Sept 1990, Transmitting SWMU 8 Contamination Assessment

B & V Waste Science and technology Corp, May 1990, Sherman Army Airfield SWMU 8 Field Sampling Plan

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

RESPONSE COMPLETE
SITE DESCRIPTIONS

FTL-01
INACTIVE SANITARY LANDFILL

SITE DESCRIPTION

This site is located on property managed by the United States Penitentiary Leavenworth, Bureau of Prisons, which is part of the United States Department of Justice. The site was accessed by traveling south from the end of Biddle Avenue and to a point about half-way between the property boundary and the prison.

During the 1940s, the prison excavated two trenches. Wastes, including some that today are classified hazardous and empty containers from both the Prison and Fort, were placed in the trenches. The majority of the hazardous waste was waste paints, solvents, heavy metals, and petroleum products. Once the trenches were full, they were covered with the clay excavated from the trenches.

In the early 1990s, the Bureau of Prisons hired George Butler Associates, Inc. to evaluate the prison for contamination. They conducted a test dig of one trench to determine its contents. The results from the investigation found that the trenches were dug into and covered with clay that exceeded KDHE remedial construction standards. KDHE approved the Prison's plan for leaving the buried waste in place. The Bureau of Prisons maintains the site.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, SVOCs, Organics, Metals, PCBs
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
PA/SI, RI/FS, RD, RA
CURRENT IRP PHASE:
RC - Jan 1997

INACTIVE STATUS JUSTIFICATION

This site was placed into the Fort Leavenworth Restoration Program after an AEHA survey that was tasked with identifying all potentially contaminated sites. The site was identified because Fort Leavenworth contributed some of the waste in this site, thereby making Fort Leavenworth a responsible party. This site is on Bureau of Prisons land, which is also part of the Federal Government. They have assumed all responsibility for the restoration of this site.

SITE USE LIMITATIONS

The contamination at this site remained in place and is surrounded by clay, which eliminated the hazard to the environment. The site will require maintenance to keep the cover intact. Any future use of this site would be limited to these uses, which will maintain the integrity of the containment. Any other use would require the removal of the wastes.

DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Geosystems Engineering, Inc. & George Butler Associates, Inc., Aug 1991, Volume I Task 1 Report - Preliminary Site Investigation Hazardous Waste Site Remedial Investigation U.S.P.

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

USAEHA, Mar 1986, Groundwater Potential Contamination Survey No. 38-26-0916-86

FTL-14
USED OIL TANK NEAR BUIILDING 86

SITE DESCRIPTION

This tank was located on the west end of the Vehicle Maintenance Shop parking lot. This lot is located to the north of Building 86, which is located on Biddle Avenue. The building has served as a maintenance shop for many years. The site was a 500-gallon steel underground storage tank, which was located under the asphalt in the parking lot.

The tank was installed in 1978. It was registered with KDHE as underground storage tank No. 23462U040. The 1989 Draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. The tank was removed in 1995 and closed clean as part of a Fort-wide underground storage tank project. The tank was replaced with an aboveground tank with concrete containment. Records for this work can be found in the storage tank files.

INACTIVE SITE JUSTIFICATION

This tank was closed per KDHE UST regulations. The resulting excavation was backfilled with clean material and the pavement restored.

SITE USE LIMITATIONS

The clean closure of this site allows unrestricted future use.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

STATUS

PROGRAM: OMA

STATUS:
CERCLA/RCRA- Inactive

RRSE RATING:
NE

CONTAMINANTS OF CONCERN:
Metals, VOCs

MEDIA OF CONCERN:
Groundwater, Soil

COMPLETED IRP PHASE:
PA, RD, RA

CURRENT IRP PHASE:
RC - Jun 1995

FTL-16, 17, 18, 50, 51
USED SOLVENT TANK UST NEAR BLDG 487

SITE DESCRIPTION

This site is located inside the US Disciplinary Barracks walls. The location of the site inside the walls is along the west side about 100 meters north of the south wall. The tanks were located in the grass-covered area between the Dry Cleaning Shop, Bldg 487, and Maintenance Shop, Bldg 468.

None of the 5 sites (tanks) listed in this section have been closed out with regulatory agencies due to the significant contamination of the site. Closure can only be obtained once the final remedy for the contamination is in place. The Army has chosen to list these five tanks in the inactive section of the report and use only FTL-15 for remediation work. This prevents considerable duplication of effort that would happen if these sites were to remain open.

The KDHE tank registration numbers were: FTL-16 = 23462U037; FTL-17 = 23462U038; FTL-18 = 23462U039; FTL-50 = 23462U043; FTL-51 =23462U044.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: RCRA Corrective Measures
RRSE RATING: High
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
PA/SI, RI/FS, RD, RA
CURRENT IRP PHASE:
RC - Nov 1991

STRATEGY FOR FUTURE ACTIONS

These sites have been closed out. All future actions will be tracked by FTL-15.

SITE USE LIMITATIONS

Use of the site will be restricted to those activities not disturbing the contamination under the ground or are capable of removing it.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Jun 2001, ITS QA Data Comparison Report for the Site Investigation Report at the Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Jan 1999, Draft Phase 2 Site Investigation Report for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Final Work Plan Addendum for the Phase 2 Site Investigation at the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 1998, Final Quality Control Plan for Phase 2 Site Investigation Report for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Oct 1997, Draft Addendum for the Phase 2 Site Investigation at the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb, 1997, Final Site Assessment Report for the United States Disciplinary Barracks

Burns & McDonnell Engineers-Architects-Consultants, Feb 1997, Final Quality Control Summary Report for Site Assessment at the United States Disciplinary Barracks Volume I and II

Burns & McDonnell Engineers-Architects-Consultants, Apr 1996, Site Assessment Work Plan for the United States Disciplinary Barracks

Environmental Remediation and Consulting, Feb 1994, Environmental Operations,Inc. Project #4654 Project Close-Out Report Stoddard Solvent Tank Removal

US Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-19
SEWAGE LAGOONS

SITE DESCRIPTION

These lagoons are located in the northwest corner of the Fort where the boundary shifts about ½ mile to the east. They are located in a draw adjacent to the county road that marks the northern boundary of the Fort at this point. This area of this site is still known as the US Disciplinary Barracks (USDB) Farm, even though it closed in 1995.

The lagoons were constructed in 1980 to contain runoff from the USDB Farm pig raising operations. The facility consisted of an upper lagoon (No. 1), 75 x 120 x 17 ft deep and a lower lagoon (No. 2), 150 x 350 x 8 ft deep. The lagoons, historically classified as agricultural waste lagoons by KDHE, were used to treat livestock waste and waste from inmate living facilities. The lagoons are required to remain non-discharging. The lagoons were upgraded in 1993 by sealing the bottoms of the lagoons and installing irrigation equipment. The irrigation equipment was used to apply water from the lower lagoon to pastureland to the west. The purpose of the equipment was to increase evaporation and to keep the non-discharge status.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Active Facility
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Sewage
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Jun 1994

In 1996, the USDB Farm closed and the lagoons were re-permitted to use only Lagoon No. 1 for sewage treatment of human wastes. The second lagoon still contains water.

The USDB Farm needed a sewage treatment facility since it was located a long way from the installation sewer system. This has changed with the construction of the new USDB on the north part of the old farm. The new prison is served by sewers, which will allow this system to be closed. Although restoration is required, this site is still active and is not eligible for the Defense Environmental Restoration Program.

STRATEGY FOR FUTURE ACTIONS

KDHE Regulations will eventually require site closure if this system ever ceases operation. Closure will use Operations and Maintenance Account Funds. These funds will be made available from either Environmental Funding received from Headquarters Training and Doctrine Command (TRADOC) or from funds given to Fort Leavenworth for operation and maintenance activities.

SITE USE LIMITATIONS

Closure of the site is expected to require either encapsulation of the materials in the lagoon or removal of the material. The removed material can probably be incorporated into a farm field. If the wastes are removed there will be no restriction on future uses. If they are encapsulated, the use of the site will be restricted to activities not damaging the cover material or the cap.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Burns & McDonnell Engineers-Architects-Consultants, Apr 1995, Groundwater Monitoring Report Oct 1994 Sampling Event

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Site Safety and Health Plan Groundwater Sampling Program

Burns & McDonnell Engineers-Architects-Consultants, Oct 1994, Chemical Data Acquisition Plan Groundwater Sampling Program

US Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

USAEHA, Mar 1986, Groundwater Potential Contamination Survey No. 38-26-0916-86

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-21
SEPTIC TANK NEAR BLDG 428

SITE DESCRIPTION

Building 428 is located on Sherman Drive just north of the USDB Greenhouse. The building is a small red brick structure currently housing Military Intelligence.

A search of historical drawings shows that the sewage system consisted of a tank to remove and digest solids and a pipe to discharge the resulting liquid into the seasonal creek to the west of the site.

The tank was installed when the building was constructed in 1920 as a radio transmitter facility. The tank was apparently abandoned in place when a sewer connecting the building to the Fort's sewage system was constructed in the late 1970s. There are no indications that the building was used for activities that would have contaminated the system.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Sewage
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

There is a good possibility that the tank and discharge pipe still remain. There is no reason to believe that these contain an environmental hazard that would keep this site in the active section of the restoration plan.

SITE USE LIMITATIONS

Any future construction plans for this site needs to consider the impact the tank and pipe will have on the project. If the tank is disturbed the contents of the tank should be tested for metals, pesticides and herbicides just to ensure that the no hazard assumption is correct.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

FTL-22
SEPTIC TANK NEAR BLDG 425

SITE DESCRIPTION

The Hunt Lodge is located south and west of the Fort Leavenworth NIKE Launch Site. The road to the facility runs west from the south side of the NIKE site. The tank was located on the west side of Hunt Lodge, Building 425. The tank and leachate field were located between the road and the hill to the west, approximately where the existing holding tank sits.

The tank was installed in 1919 when the building was constructed for prisoner lodging. The building was subsequently converted to a recreational facility. The septic tank was removed in 1989 after numerous complaints about the water logged drainage field. The Jet Aeration Package Plant replaced the septic tank that discharged to the waterway to the west. The discharge from the aeration plant flowed off-post, which was a violation of the Clean Water Act. To correct the violation, the aeration system was replaced in 1991 with a holding tank that is periodically pumped by installation maintenance crews.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Sewage
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Aug 1991

INACTIVE SITE JUSTIFICATION

The environmental hazard identified by this site has been remediated; therefore, there is no reason for any future restoration activity at this site.

SITE USE LIMITATIONS

If the Hunt Lodge is ever closed and demolished, the removal of the holding tank needs to be part of that project.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

FTL-25
OLD PESTICIDE BUILDING 234

SITE DESCRIPTION

This building is located on the east side of West Warehouse Road about halfway between McPherson Avenue and Organ Avenue. The building served as the Frontier Fix-it Store until 1998 and is now the Corps of Engineers Resident Office. This is a two-story brick structure about 30 x 60 ft long.

The building was constructed in 1903 and served as the Entomology Shop from 1960 to 1975. The 1983 study reported that about half the building was used for the storage and mixing of insecticides. The 1989 Draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. No further action has been taken on this site.

INACTIVE SITE JUSTIFICATION

KDHE has expressed an interest in having an investigation of this site. The findings from the existing Entomology Shop will be used to evaluate the need for investigation at this site.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

SITE USE LIMITATIONS

This site can be used for industrial classification activities without any investigation. The site should not be used for any activity where the occupants are in contact with or would ingest the soil at the site without a thorough environmental investigation.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-26
OLD PESTICIDE BUILDING 234A

SITE DESCRIPTION

This building is located on the east side of West Warehouse Road about halfway between McPherson Avenue and Organ Avenue. The building was located to the south of Building 234 against a retaining wall. The shed's west wall was apparently parallel with the east wall of Building 234.

The building served as a storage area for the Entomology Shop when Building 234 was the Entomology Shop. This building was a portable wooden shed that was located alongside Building 234 (see FTL-25). The shed was approximately 4 x 6 feet in size and was used to store bulk quantities of malathion.

The 1983 report indicates that the shed was used from 1973 to 1976. The 1988 USATHAMA SWMU Report indicated the shed had been dismantled and removed prior to the survey. The building was used to store malathion, other pesticides and herbicides used by the Entomology Shop.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

The portable shed has been removed. Malathion degrades fairly quickly, which would have eliminated any traces of the material. The area of this site would be investigated as part of any investigation of Building 234. There is no reason to maintain this as a separate site.

SITE USE LIMITATIONS

This site is restricted by the same limitations as Buildings 234.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-27
PAST PESTICIDE BUILDING 237

SITE DESCRIPTION

This building is located on the west side of West Warehouse Road, midway between Organ and McPherson Avenues. The building currently houses the DPW Grounds Section.

The building is approximately 60 x 240 ft. The 1983 USATHAMA Report identified this site as potentially being contaminated due to the storage of herbicides in the open bays from 1955 to 1975. The open bays referred to in the report were probably located in the northwest part of the building where materials are still stored today. There were no documented spills in the building.

INACTIVE SITE JUSTIFICATION

This building is still being used for industrial purposes and any possible contamination does not pose a significant hazard. There appears to be no justification for any environmental response at this site.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

SITE USE LIMITATIONS

This site can be used for industrial classification activities without any investigation. The site should not be used for any activity where the occupants are in contact with or would ingest the soil at the site without a thorough environmental investigation.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

FTL-28
CURRENT PESTICIDE BUILDING 93

SITE DESCRIPTION

The facility was located at the intersection of McPherson Avenue and West Warehouse Road on the northwest corner.

The building is a reinforced concrete structure approximately 10 x 10 x 6 ft high. The building was built in 1929 to store petroleum products used in the maintenance of the installation's railroad locomotives. It was used to store calcium cyanide from the 1950s until 1993. The last of the pesticide was shipped to a hazardous waste disposal facility in 1993. The building has remained empty since. The building was demolished in 2000.

INACTIVE SITE JUSTIFICATION

Calcium cyanide breaks down in the presence of moisture so an investigation would not expect to find any trace of the material. There were no visible indications of contamination when the building was demolished. The lack of signs that significant spills occurred, combined with the limited use of the facility does not warrant a special investigation of this site.

SITE USE LIMITATIONS

Once the building is removed, the site can have any use.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

FTL-29
PAST PESTICIDE BUILDING 412

SITE DESCRIPTION

This building was located in the northwest corner of the Fort where the boundary shifts about ½ mile to the east. The building was located about 10 meters north of the county road and about 150 meters west of the access road off the Fort.

The building was constructed in 1938 and may have originally held petroleum products used to maintain the USDB Farm machinery. Sometime in the 1950s, the Farm started storing pesticides and herbicides in the building. Storage operations ceased in 1992 when it was replaced by a new facility conforming to current regulations. All chemicals in the building were characterized by the Fort's Environmental Office and shipped off-post as hazardous or special wastes. In 1989 the EPA Facilities Assessment directed that this site be investigated further. The building was demolished and all contamination removed in 1996 as part of an Interim Remedial Action. Final closure will be addressed under Site FTL-30.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: High
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE: PA
CURRENT IRP PHASE:
RI
FUTURE IRP PHASE:
RC

INACTIVE SITE JUSTIFICATION

The building has been removed. Testing found no residual contamination. No further action is programmed for this site.

SITE USE LIMITATIONS

There are no restrictions on the use of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-31
CURRENT PESTICIDE BUILDING 399

SITE DESCRIPTION

The United States Disciplinary Barracks (USDB) Greenhouse was located on Sherman Drive just west of its intersection with Warehouse Road. The greenhouse complex consists of the greenhouse built in 1918 made with a steel frame and fiberglass panels and a boiler plant building built in 1919 constructed of brick and concrete.

The building was approximately 100 x 60 ft. Small quantities of pesticides were stored and mixed in the building. Mixing and formulation was done in a small area next to the storage cabinet in the east side of the greenhouse. This continued until 1993 when storage and mixing was moved to the new pesticide building at the USDB Farm. The Farm closed in 1995 and the mixing and storage functions were then transferred to the Entomology Shop in 1995. The greenhouse closed in 1998. The building was demolished in 2001.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

The small level of contamination that might have been present in this facility did not justify a special environmental investigation. Samples of the soil in the building were tested prior to demolition. No traces of pesticides were found.

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

U.S. Army Corps of Engineers Kansas City District, Aug 1992, Golf Course Maintenance Building No. 84 Hazardous Materials Building USDB Greenhouse Buildings No. 398 & 399 Construction Solicitation and Specifications

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-32
PESTICIDE BUILDING 84

SITE DESCRIPTION

This site is the maintenance building for the Fort Leavenworth Golf Course. The building is accessed by a gravel drive going south from Pope Avenue. The drive entrance is located across the street from the Dental Clinic. The facility consists of a building approximately 80 x 20 ft. Pesticides are stored inside this building and are used to maintain trees and greens on the golf course.

The present building was constructed in 1981 on the same location as the original Building 84. Mixing was done on the rock parking lot next to the building until 1993 when a new concrete mixing pad was installed. The facility mixes pesticides and herbicides for use on the golf course.

The USATHAMA survey of Fort Leavenworth determined that this site had the potential to have an environmental impact. There are no indications that this facility has significant contamination.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pesticides, Herbicides
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

This site is not in the restoration program since the facility remains in use today.

SITE USE LIMITATIONS

Some investigation should be done if there were major changes to the facilities. The site is commercial in nature. Provided any new activity is commercial in nature there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

U.S. Army Corps of Engineers Kansas City District, Aug 1992, Golf Course Maintenance Building No. 84 Hazardous Materials Building USDB Greenhouse Buildings No. 398 & 399 Construction Solicitation and Specifications

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-33
WASH RACK BUILDING 262

SITE DESCRIPTION

This site is located in Building 262, Transportation Motor Pool (TMP), which is on the north end of Riley Avenue. This building is located at the southwest corner of the TMP area. The building is approximately 180 x 60 ft. The wash rack is indoors

It is possible the west end of this building was used as a wash rack since its construction in 1905. The site was documented by the 1988 USATHAMA SWMU Study. The study found that the facility discharged to the storm sewer and stated that it should have an NPDES Permit. The 1989 Draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. An oil water separator was installed in 1993, and the drain was connected to the sanitary sewer.

INACTIVE SITE JUSTIFICATION

No further restoration program investigation is needed since this is an active facility and discharges to the sanitary sewer.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Jun 1993

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-34
WASH RACK BUILDING 431

SITE DESCRIPTION

This indoor wash rack was in a facility known as the USDB Car Wash. The building was located at the intersection of McPherson Avenue and Bluntville Loop Road. The building is approximately 20 x 60 ft. The wash rack is indoors and discharges into the sanitary sewer.

Building 431 was originally constructed as a Post Exchange Service Station in 1927. The building served as a service station until 1955, when Building 350 (FTL-67) replaced it. Building 431 then became a car wash staffed by USDB prisoners. The discharge from this building originally went into the storm sewer, but it had been changed to the sanitary sewer by 1988. An oil/water separator was installed in 1993. The car wash operation ceased in 2001. The building is currently vacant.

INACTIVE SITE JUSTIFICATION

No further restoration program investigation is needed due to the low potential for release to the environment and since this building is connected to the sanitary sewer.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Oct 1993

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-35
WASH RACK BUILDING 571

SITE DESCRIPTION

This facility was located east of the Post Exchange Shoppette about where the drive-up order station for Burger King is now located. The wash rack was an indoor system with no grit chamber or oil/water separator and discharged to the storm sewer system.

This facility was constructed in 1975 when the present Post Exchange Service Station was constructed. This facility was demolished in Feb 1988. The 1988 USATHAMA SWMU Study lists the site and expressed a concern that it discharged directly into Corral Creek. The 1989 Draft RCRA EPA Facilities Assessment indicated that this site had a low hazard potential and did not require investigation

INACTIVE SITE JUSTIFICATION

This site is closed. No further restoration program investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Dec 1984

SITE USE LIMITATIONS

The site has changed use. No contamination was found during construction work in this area. This site has been closed out and is available for unrestricted use.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-36
WASH RACK BUILDING 132

SITE DESCRIPTION

Building 132, an aircraft hangar, is located at Sherman Army Airfield at the intersection of Chief Joseph Loop Road and Sheridan Drive.

There were no formal washing areas in the hangar bays; however, there was a trench drain on the west end of each hangar where airplanes were washed. Each hangar is approximately 100 feet by 120 feet. The hangars were constructed in 1932. Originally, aircraft were also washed on the ramps around the building. The wash operations were later moved inside the hangars where the wastewater discharged into the sanitary sewer. The site was documented by both the 1983 and 1988 studies. The 1989 Draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. The south hangar was equipped with an oil/water separator in 1992 and the north hangar was equipped in 1993, with both systems now discharging into the sanitary sewer.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Sept 1993

INACTIVE SITE JUSTIFICATION

This is an active facility with drains that connect to the sanitary sewer. No further restoration program environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-37
WASH RACK BUILDING 86

SITE DESCRIPTION

This site is inside Building 86, which is located at 811 McClellan Avenue. The wash rack is located at the west end of the building on the south side. The building is approximately 220 x 100 ft. The building houses the DIS Vehicle Maintenance Facility.

This building was constructed in 1886 as a riding arena. It was converted to a motor vehicle maintenance building, probably in the 1920s. The 1983 study found that the wash rack discharged in to the sanitary sewer. A 1988 study found that the facility did not have an oil/water separator. The wash rack was equipped with an oil/water separator in 1994 that discharges to the sanitary sewer.

INACTIVE SITE JUSTIFICATION

No further restoration program environmental investigation is needed due to the low potential for release to the environment and since this facility discharges to the sanitary sewer.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Jun 1995

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Ma 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-38
WASH RACK BUILDING 305

SITE DESCRIPTION

This outdoor wash rack is located at the Fort Leavenworth Recycling Center at the corner of McPherson Avenue and Riley Avenue. The wash rack is located on the north side of the building on the east side of the facility. This outdoor wash rack has a grit chamber, an oil/water separator, and discharges into sanitary sewer system.

Building 305 was constructed in 1908. The wash rack was probably constructed in the 1950s or 1960s. It was used to wash equipment before it went into the maintenance shop formerly located in this building. The 1983 and 1988 Studies both discuss this site. This facility was the DEH maintenance shop until 1990. The wash rack is not currently used. The rack met all applicable regulations and was well maintained.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

No further restoration program environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-39
WASH RACK BUILDING 496

SITE DESCRIPTION

This wash rack was located on the east side of Building 496, which was the USDB Auto Body Repair Shop. This facility was probably constructed about 1967 and was referenced in 1983 and 1988 studies.

INACTIVE SITE JUSTIFICATION

The facility has closed. There are no signs of contamination that would indicate any significant amounts of contamination. No further restoration program environmental investigation or action is necessary.

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA/SI, RI/FS, RA
CURRENT IRP PHASE:
RC - Jun 1995

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-40
WASH RACK BUILDING 237

SITE DESCRIPTION

This wash rack is located on the north side of Building 237. Building 237 houses the DPW Grounds Shop and is located on the west side of West Warehouse Road between McPherson Avenue and Organ Avenue. The wash rack was constructed for the washing of trash trucks.

The building was constructed in 1903. The wash rack was constructed and put into operation about 1980. It was built for the daily washing of trash trucks that is required by Army Regulations and drains into the sanitary sewer. This facility was discussed in both 1983 and 1988 studies. The wash rack is currently in operation.

INACTIVE SITE JUSTIFICATION

No further restoration program environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Surface Water
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-41
INCINERATOR BUILDING 344

SITE DESCRIPTION

The incinerator was located in Building 344, Munson Army Hospital Boiler Plant, in the rear of the building. It was manufactured by Alamo Destructor and was a Model IGS-IP. It was used for incinerating pathological/infectious wastes.

The incinerator was installed when Munson Army Hospital was constructed in 1961. It began operation shortly thereafter. This site is mentioned in a 1988 study, which indicated the incinerator stopped processing excess controlled pharmaceuticals in 1979. The 1989 Draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. It was removed in 1993 during a renovation of the hospital

The site is not eligible for the Defense Environmental Program since it was inside the building.

STATUS

PROGRAM: OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Pathological, Infectious, Controlled Pharmaceutical Wastes
MEDIA OF CONCERN:
Surface Water, Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Dec 1979

INACTIVE SITE JUSTIFICATION

The incinerator has been removed. Any waste would have been contained inside the building and would have been sent to one of the sanitary landfills on the Fort. This site will be considered closed clean unless future work at the site finds indications of problems.

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-42
INCINERATOR BUILDING 111

SITE DESCRIPTION

The incinerator is located in Building 111, Bell Hall, in Room 90. The incinerator was manufactured by Joseph Goder, Inc. and is a Model 450-1-N, Class 3. This unit was used to destroy classified documents. The ash was sent to the sanitary landfill.

The original incinerator was installed in 1959 when Building 111 was built. The original incinerator suffered several accidents and was replaced with the present unit. A 1988 study documented this site. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. Incinerator operations were shut down in November 1994. The unit remains in place.

The site is not eligible for the Defense Environmental Program since the incinerator was located inside the building.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

This unit is fully enclosed in the building and does not pose a significant hazard to the environment. It should be removed completely, using OMA funds. Should the unit resume operations, an Air Permit would be required and the ash would need to be TCLP tested.

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-43
INCINERATOR BUILDING 111

SITE DESCRIPTION

The incinerator was located in Building 111, Bell Hall, in Room 310. The incinerator was manufactured by Joseph Goder, Inc. and is a Model 150-1-N.

The incinerator was installed in 1959 when the building was constructed, and operated until the early 1980s when it was removed from service. The unit has not been used since. A 1988 study documented this unit. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation.

This site is not eligible for the Defense Environmental Restoration Program since it is located inside the building.

INACTIVE SITE JUSTIFICATION

This unit is fully enclosed by the building and does not pose any threat to the environment. It should be removed from the building. Any ash that remains in the unit should be TCLP tested before disposal.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

SITE USE LIMITATIONS

The site is commercial in nature. Provided any new activity is commercial in nature, there does not appear to be a need for any restrictions. The facility should be investigated if the new activity is residential in nature.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-44
INCINERATOR BUILDING 632

SITE DESCRIPTION

This incinerator was located in the old commissary that was located on the west side of Grant Avenue and north of Iowa Street. This is the southeast corner of the current Hoge Hall. The unit was used to reduce about 700 tons per year of corrugated paper boxes. The ash was sent to the sanitary landfills.

The commissary building was built around 1942 as part of the World War II expansion. The Incinerator was probably installed at that time. It continued operating until the new commissary was opened in 1984. The incinerator, along with the building, was demolished in August 1984. The site was listed in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Ash, Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Dec 1980

INACTIVE SITE JUSTIFICATION

This unit has been removed and substantial amounts of soil from the site were relocated during the construction of Hoge Barracks. Most contaminated material was removed during demolition and sent to one of the landfills currently under investigation. No further environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might remain at the site.

SITE USE LIMITATIONS

The site was closed clean. There is no restriction on future use.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-45
INCINERATOR BUILDING 136

SITE DESCRIPTION

The incinerator was located at the rear of Building 136, Directorate of Information Management. Building 136 is located on the west side of Biddle Boulevard between Kearney Avenue and Pope Avenue. The incinerator unit was located on the west side of the building on the north side of the loading dock area. The ash from this operation was sent to one of the sanitary landfills.

The incinerator was probably installed in the 1960s to destroy classified documents (10 tons in 1976). The unit operated until the early 1980s when it was replaced by document shredders. The site is mentioned in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. The unit was removed in 1995 due to the deterioration of the unit's casing. The deterioration raised concerns about the asbestos being released to the environment. The unit was taken to a sanitary landfill and buried as asbestos waste. The remaining ash was TCLP tested and shipped as a RCRA hazardous waste.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Ash, Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Oct 1995

INACTIVE SITE JUSTIFICATION

This unit was closed in compliance with all current environmental regulations using OMA funds. No further action is required.

SITE USE LIMITATIONS

There are no restrictions on the future use of this site due to the incinerator being completely remediated.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-46
HAZARDOUS WASTE STORAGE AT BUILDING 279

SITE DESCRIPTION

This hazardous waste storage building is located near Building 279 in the yard that was used by DRMO. The building measures 18 x 12 feet. This building is used for hazardous waste storage. A hazardous waste contractor collects hazardous waste. The building is located at the north end of West Warehouse Road, at the bottom of the hill.

The building was constructed in 1985 and operated under a RCRA Permit until February 9, 2001. The building was closed clean under the RCRA Permit. It is now used as a less than 90 day storage facility.

The Defense Reutilization and Marketing Office (DRMO) at Fort Leavenworth operated this facility from 1985 until Feb 1998 when their operations at Fort Leavenworth closed. The Fort Leavenworth Environmental Division now operates this facility. The site was listed in the 1988 study. The 1989 Draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
RCRA and TSCA Hazardous Waste
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

This site is ineligible for the Defense Environmental Restoration Program since it was operational after the 1990 cutoff.

INACTIVE SITE JUSTIFICATION

This is an active facility that was closed in compliance with the RCRA permit. This site is not DERP eligible.

SITE USE LIMITATIONS

The site will have to be investigated and remediated prior to any reuse of the site. The site was investigated in the year 2000. No contamination was found above the Risk Based Standards levels.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-47
MEDIA SUPPORT AREA BUILDING 77

SITE DESCRIPTION

Building 77, Training Support Center is located on the southeast corner of the intersection of Grant and Reynolds Avenues. The buildings are located on the east side of the building at the south end of the parking lot.

The buildings were probably constructed in the 1940s or 1950s to remove flammable materials from the main building. They originally stored substantial quantities of hazardous materials and were used as a satellite accumulation point for hazardous wastes for many years. Today, they hold only small amounts of hazardous materials. The buildings were discussed in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation.

One of the buildings was removed in 2001. The remaining building is still in operation. Therefore, this site is not eligible for the Defense Environmental Restoration Program.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
RCRA and TSCA Hazardous Waste
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

There are no signs of any significant contamination caused by past operating practices. The materials stored in these buildings were primarily solvents that would have evaporated when spilled. RCRA Regulations require any new spills to be cleaned up as soon as possible. Prior to the buildings being demolished, a survey should be made to reconfirm the low hazard classification of these buildings.

SITE USE LIMITATIONS

Unless contamination is found at the site, there will be no restrictions on the future use of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-48
SEWAGE TREATMENT SYSTEM BUILDING 138

SITE DESCRIPTION

Building 138 is located on Chief Joseph Loop Road on the northeast side of the levee that surrounds Sherman Army Airfield. The treatment unit is located on the south side of the building towards the rear of the property. The plant was designed to treat 5,000 gallons of waste per day. Wastewater was discharged onto the floodplain to the east.

The buildings were constructed in 1960 and originally used a septic system for sewage disposal. The mission of the buildings was expanded in 1980 when a second floor was added and offices constructed. This required additional sewage treatment capacity. The site was found to be unsatisfactory for additional septic tank capability so a package aeration system was installed. It was in operation until 1992. The erratic operating schedule of the facility made compliance with the terms of the NPDES permit unobtainable. This was corrected by converting the system into a holding tank that was pumped into a tank truck on a regular basis. The sewage was then dumped into the Fort sanitary sewer system for treatment. This continued until 1998 when the building was abandoned. The site was reported in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. The building and sewage treatment facility was demolished in February 1999.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Sewage
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RC - Sept 1998

INACTIVE SITE JUSTIFICATION

The unit treated sewage from the building. There were no industrial operations in the building that would have contributed hazardous chemicals to the unit. The treatment unit was removed in 1998. There were no indications that anything other than sewage passed through this unit. No further environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

SITE USE LIMITATIONS

No contamination was found at the site during closure. There are no restrictions on future use of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

FTL-49
HAZARDOUS WASTE STORAGE BUILDING 829

SITE DESCRIPTION

Building 829 is located at the NIKE Kansas City 80 Launch Site. The building is located east of the fenced area going to the launch pits. The building was originally constructed to service the rockets used in the NIKE program. The building measures 20 x 50 ft. This site was the original “conforming storage facility” for RCRA wastes.

The building was constructed in 1959 to fuel the NIKE missles. It was used from 1985 to 1986 for hazardous waste storage. Contamination was found after all the wastes were removed. The site was cleaned and closed under RCRA regulations. The site is listed in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation

This site is not eligible for the Defense Environmental Restoration Program because the site is inside a building.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
RCRA Waste
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Dec 1989

INACTIVE SITE JUSTIFICATION

The site has been remediated and closed under RCRA. Hazardous materials are no longer stored in the facility. There is no requirement for any further action.

SITE USE LIMITATIONS

The site was closed clean. There are no restrictions on the future use of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-52
USED OIL TANK BUILDING 109

SITE DESCRIPTION

Building 109 was the Directorate of Community Activities (DCA) Automotive Craft Shop. The building is located on the west side of McClellan Avenue several hundred feet south of the intersection of McClellan Avenue and Bluntville Avenue. The 500-gallon, steel waste oil tank was located on the south side of the building.

The building was constructed in 1901. The installation date of the original tank is not known, but may have been prior to 1940. The tank was in use until 1990 when it was removed and the site closed clean. A new double wall fiberglass tank was installed in the same location. The site is identified in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. The new double-wall, fiberglass tank was removed in November 1998, and the site closed clean.

This site is not eligible for the Defense Environmental Restoration Program since it was in use in 1990.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, SVOCs, Organics, Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - Sept 1991

INACTIVE SITE JUSTIFICATION

The original tank that was initially identified in the early reports was removed and the site closed clean per KDHE regulations about 1990. Subsequent actions pertaining to a new tank installed at the site were done under RCRA UST Regulations. The new tank was removed in November 1998, and the site was closed clean.

SITE USE LIMITATIONS

The site was closed clean. There are no restrictions on the future use of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Environmental Remediation and Consulting, Feb 1994, Environmental Operations, Inc. Project #4654 Project Close-Out Report Stoddard Solvent Tank Removal

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-53
USED OIL TANK BUILDING 471

SITE DESCRIPTION

This tank was located between Buildings 485 and 471 in the USDB. Building 485 was a body repair shop and Building 471 was an automotive repair shop. The tank was probably installed to receive waste oil from an oil/water separator that served the wash rack located between the buildings.

It is believed that the tank was installed in 1967, when the auto repair shop was constructed. The tank was removed in 1993 as part of the project to remove the tanks at FTL-50 and FTL- 51. The site was closed clean. The site was identified in a 1988 study. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation.

This site is not Defense Environmental Restoration Program eligible since the site was in use after 1989.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, SVOCs, Organics, Metals
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RA
CURRENT IRP PHASE:
RC - Oct 1993

INACTIVE SITE JUSTIFICATION

The tank was closed clean per KDHE regulations. No further actions are required.

SITE USE LIMITATIONS

The site was closed clean. There are no restrictions on the future use of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Environmental Remediation and Consulting, Feb 1994, Environmental Operations, Inc. Project #4654 Project Close-Out Report Stoddard Solvent Tank Removal

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-54
USED OIL STORAGE, BUILDING 132

SITE DESCRIPTION

Building 132, an aircraft hangar, is located at Sherman Army Airfield at the intersection of Chief Joseph Loop Road and Sheridan Drive. Waste oil was reported to be stored in the south hangar. Each hangar is approximately 100 feet by 120 feet with a drain at the west end. Waste oil was stored in 55-gallon drums at this site, until waste oil contractor removed the 55-gallon drums.

The hangars were built in 1932 and have been used to support air operations since that time. No records exist about past disposal practices. A 1988 study indicated the oil was stored in drums and removed by a waste oil contractor at that time. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. In 1998, there were only two aircraft assigned to this airfield. The waste oil from these planes was placed in the waste oil tank at Building 86. All assigned aircraft were removed from Fort Leavenworth at the end of 1998. Currently, no government-owned aircraft is located at the airfield.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA/SI, RI/FS, RD, RA
CURRENT IRP PHASE:
RC - Jan 1997

INACTIVE SITE JUSTIFICATION

There are no indications of significant spills at this location. No further environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

SITE USE LIMITATIONS

There are no restrictions on the reuse of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-55
USED OIL STORAGE CITY AIRPORT OPERATION

SITE DESCRIPTION

The City of Leavenworth leases land south of Building 75 on Chief Joseph Loop Road for use as a municipal airport operation. There is one enclosed hangar on the north side that is used for aircraft repairs

The site was leased to the city, probably in the 1960s. The 1988 study found that Craig Aero, Inc. was the contractor running the operation. Waste oil was stored in the hangar and disposed of by a waste oil contractor. The contractor was generating about 500 gallons a year at that time. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation.

INACTIVE SITE JUSTIFICATION

There are no signs of contamination from this operation in the hangar. Environmental testing should be done by the Army should the hangar ever be removed.

SITE USE LIMITATIONS

There are no restrictions on the reuse of this site.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, SVOCs
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Jun 1988

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units,

FTL-56
USED OIL CONTAMINATED FUEL STORAGE AREA

SITE DESCRIPTION

Building 132, an aircraft hangar, is located at Sherman Army Airfield at the intersection of Chief Joseph Loop Road and Sheridan Drive.

The Flying Club has been in operation since the 1950s. They used the north hangar as their base of operations until the early 1980s when handball courts were built in the hangar, and locker rooms were built in the north wing. Waste materials were probably stored in the hangar until that time. The storage location found by a 1988 study was probably opened in the 1980s and closed in the mid 1990s. The 1989 draft RCRA EPA Facilities Assessment indicated this site had a low hazard potential and did not require investigation. The DCA Flying Club stored waste oil and off specification fuel in drums located in the open area between the hangar and the north concrete pad used to park aircraft. The waste was stored in 55-gallon drums and was picked up by a waste oil contractor.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs, Organics
MEDIA OF CONCERN:
Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Jun 1988

INACTIVE SITE JUSTIFICATION

No further action is recommended since periodic reviews have found no signs of releases. No further environmental investigation is needed due to the low potential for release to the environment and the small amounts of hazardous materials that might be found at the site.

SITE USE LIMITATIONS

There are no restrictions on the reuse of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

United States Army Environmental Hygiene Agency, Feb 1987, Interim Final Report, Hazardous Waste Consultation No. 37-26-1386-88, Evaluation of Solid Waste Management Units

FTL-58
SKEET RANGE (ACTIVE)

SITE DESCRIPTION

The skeet range is located on the west side of Sheridan Drive just south of its intersection with McPherson Avenue. The site is approximately 750 x 500 ft in size.

This range opened in 1989. It is currently in operation and lead shot is used at the site. The site was added to this plan in 1992 to document the site for future remediation purposes.

INACTIVE SITE JUSTIFICATION

This is an active site and is not eligible for DERP funding. The use of lead shot makes this a contaminated area that will require remediation in the future using Operations and Maintenance Account Funding. A site investigation using OMA funds will be required when the facility closes or before any work is done in the impact area. The hill top location makes migration of lead from the site a possibility. Water drainages need to be tested occasionally to ensure that lead is not migrating from the site in violation of RCRA. Periodic water testing should also be conducted to insure that lead levels are not in violation of the Clean Water Act.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Metals
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
P
CURRENT IRP PHASE:
RC - Jul 1993

SITE USE LIMITATIONS

No reuse of this site is possible until the lead contaminating it has been removed. Any action that would move or remove the soil from this area must be coordinated with Hazardous Waste personnel. There is a strong possibility that this material would fail the RCRA Toxic Characteristic Leaching Procedure (TCLP) and will be classified as a hazardous waste.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Apr 1, 2003, Firing Ranges and Associated Facilities

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

FTL-59
KINDER RANGE

SITE DESCRIPTION

Kinder Firing Range is located at the north end of North Warehouse Road on the west side. The firing range is used for both military and civilian weapons discharge. The range is approximately 750 x 500 ft in size and uses an earthen bluff as a backstop.

Kinder Firing Range probably opened in the 1950s as a replacement for the 5th Artillery Avenue Firing Range that was being closed due to housing construction. The range is still active today. The site was listed in the 1992 IAP as a means of tracking this site and documenting the remedial actions that will be required in the future.

INACTIVE SITE JUSTIFICATION

This is an active firing range that is not eligible for DERP funding. Remediation using OMA funds will be required when the facility closes or before any work is done down range. Any excavation of the impact area at this range must address RCRA disposal rules for the removed material since it is expected to fail TCLP testing.

STATUS

PROGRAM:
OMA
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Metals
MEDIA OF CONCERN:
Surface Water, Groundwater, Soil
COMPLETED IRP PHASE:
PA
CURRENT IRP PHASE:
RC - Apr 1997

SITE USE LIMITATIONS

No reuse of this site is possible until the lead contaminating it has been removed. Any action that would move or remove the soil from this area must be coordinated with hazardous waste personnel. There is a strong possibility that this material would fail the RCRA Toxic Characteristic Leaching Procedure (TCLP) and will be classified as a hazardous waste.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Apr 1, 2003, Firing Ranges and Associated Facilities

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-61
TANK REMOVAL, BLDG 431

SITE DESCRIPTION

Building 431 is located at the intersection of McPherson Avenue and Bluntville Road. The building was the USDB Car Wash, but was originally the Post Exchange Gasoline Station. A tank vent was found on the west side of the building in 1993. The site was investigated as a UST.

The building was constructed in 1927 as the Post Exchange Service Station and served in this capacity until about 1957. A vent pipe was found on the side of the building in 1993. The site was remediated in 1995. The contractor determined the tank was steel and had been cleaned and filled with sand. The tank was legally closed. The tank was not removed due to its close proximity to the foundation of the building.

INACTIVE SITE JUSTIFICATION

The tank should be removed if the car wash building is ever demolished. This work would be done using OMA funds.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
PA, RD, RA
CURRENT IRP PHASE:
RC - May 1995

SITE USE LIMITATIONS

There are no environmental restrictions on the reuse of this site. However, the tank will have to be removed if a building or other structure is ever placed on the site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

HDB Construction, Inc., May 1995, Closure Report Building 431 U.S. Army Corps of Engineers Underground Storage Tank Removal USACE Contract DACW41-93-D-0037 Delivery Order No. 0010

FTL-62
UNDERGROUND PROPANE TANK, USDB FARM

SITE DESCRIPTION

Building 424 is located on the northern part of the Fort just inside the 90-degree angle where the post boundary changes. The tank was located south of the building. It was used to store propane for heating the building. The tank probably leaked and was replaced by an aboveground tank.

The installation date of the tank is unknown. The tank was documented in the Installation Action Plan in 1992 to ensure that a record was kept of the site. The tank was removed in 1995 using OMA funds.

INACTIVE SITE JUSTIFICATION

The tank has been removed and closed clean. No further response is required.

SITE USE LIMITATIONS

There are no environmental restrictions on the reuse of this site.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Jun 1995

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

FTL-64: REMOVE UST BLDG 264

SITE DESCRIPTION

Building 264 is located on the east side of the Transportation Motor Pool (TMP) yard. The building was used as a maintenance facility many years ago. The TMP is located at the north end of Riley Avenue. The tank was located on the south side of the building on the east. The actual use of the tank is not known; however, it is believed that it was used to store kerosene for cleaning equipment.

Building 264 was constructed in 1905, probably as a wagon shed. The building later became a vehicle maintenance facility, probably in the 1920s. The tank was discovered during the ECAS audit in August 1994. The site was investigated using OMA funds, and an empty old riveted tank was found. Employees working at the facility believe this tank may have held kerosene for a steam cleaner; however, this could not be confirmed. The tank was removed in October 1994 and the site closed clean.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Jan 1995

INACTIVE SITE JUSTIFICATION

The tank has been removed and the site closed clean. No further action is required.

SITE USE LIMITATIONS

There are no environmental restrictions on the reuse of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Environmental Science and Engineering, Inc., Mar 1983, Installation Assessment of Combined Arms Center Report No. 327

FTL-67
UNDERGROUND TANKS OLD PX SERVICE STATION

SITE DESCRIPTION

These tanks were associated with an old PX Service Station, Building 350 that was located on the south side of Sedgwick Avenue just east of Building 314.

The service station was built in 1955, ceased operations in 1975, and was demolished in March 1986. The steel tanks at the site were removed, probably in 1985, and sent to DRMO for disposal. This site was identified in the Installation Action Plan in 1998 to document the site.

INACTIVE SITE JUSTIFICATION

The tanks were removed from the site. They were less than 30 years old. There are no records indicating that they found any contamination during removal. Any contamination at the site was probably minor. No further action is required at this site unless future work comes across significant contamination.

STATUS

PROGRAM:
Defense Environmental Program
STATUS: CERCLA- Inactive
RRSE RATING: NE
CONTAMINANTS OF CONCERN:
Petroleum Products
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
PA, RA
CURRENT IRP PHASE:
RC - Dec 1985

SITE USE LIMITATIONS

There are no environmental restrictions on the reuse of this site.

REMEDIATION DOCUMENTATION

Ecology and Environment, Inc., Nov 2001, Final Global Positioning System Survey and Geographical Information System

Schedule

PAST MILESTONES

IRP Phase	Completion Date
Initial Installation Assessment (IA)	Apr 79
Update of Initial IA	Jul 88
IR Program Plan	Nov 88
RCRA Facility Assessment	Mar 92
Nature & Extent Inv (Consent Order SWMUs)	May 95
Interim Removal Actions	Dec 98
Closure Plans (Consent Order SWMUs)	Sep 96
RFI (Corrective Action SWMUs) (Phase I)	Oct 96
RCRA Permit	Jun 00
GFPR Award	Mar 02

PROJECTED MILESTONES

IRP Phase	Completion Date
Year of RA Completion	2009
Year of IRP Completion	2034

NO FURTHER ACTION SITES-RC/ NO FUNDING

FTL-01	Inactive Sanitary Landfill	199701
FTL-09	Closed Active Sanitary Landfill	199806
FTL-12	Used Oil Tank AST Near Building 305	199506
FTL-13	Used Oil Tank UST Near Building 689	199007
FTL-14	Used Oil Tank Near Building 86	199506
FTL-16	Used Solvent Tank UST Near Bldg 487-2	199111
FTL-17	Used Solvent Tank UST Near Bldg 487-3	199111
FTL-18	Used Solvent Tank UST Near Bldg 487-4	199111
FTL-19	Sewage Lagoons	199406
FTL-21	Septic Tank Bldg 428	198806
FTL-22	Septic Tank Near Bldg 425	199108
FTL-23	Mineral Settling Lagoons	199406
FTL-25	Old Pesticide Building 234	198806
FTL-26	Old Pesticide Building 234A	199806
FTL-27	Past Pesticide Building 237	198806
FTL-28	Current Pesticide Building 93	198806
FTL-30	Past Pesticide Area Near Building 413	199609
FTL-31	Current Pesticide Building 399	198806
FTL-32	Pesticide Building 84	198806
FTL-33	Wash Rack Building 262	199306
FTL-34	Wash Rack Building 431	199310
FTL-35	Wash Rack Building 571	198412
FTL-36	Wash Rack Building 132	199309
FTL-37	Wash Rack Building 86	199506
FTL-38	Wash Rack Building 305	198806
FTL-39	Wash Rack Building 496	199506
FTL-40	Wash Rack Building 237	198806
FTL-41	Incinerator Building 344	197912
FTL-42	Incinerator Building 111	198806
FTL-43	Incinerator Building 111	198806
FTL-44	Incinerator Building 632	198012
FTL-45	Incinerator Building 136	199510
FTL-46	Hazardous Waste Stg at Building 279	198806
FTL-47	Media Support Area Building 77	198806
FTL-48	Sewage Treatment System Building 138	199809
FTL-49	Hazardous Waste Storage Building 829	198912
FTL-50	Used Solvent Tank No 5 Building 487	199111
FTL-51	Used Solvent Tank No 6 Building 487	199111
FTL-52	Used Oil Tank Building 109	199109
FTL-53	Used Oil Tank Building 471	199310
FTL-54	Used Oil Storage, Building 132	198807
FTL-55	Used Oil Storage, City Airport Operation	198806
FTL-56	Used Oil Contaminated Fuel Storage Area	198806
FTL-58	Skeet Range (Active)	199307
FTL-59	Kinder Range	199704
FTL-61	Tank Removal, Bldg 431	199505
FTL-62	Underground Propane Tank, USDB Farm	199506
FTL-63	DRMO Scrap Yard	200207
FTL-64	FTL-64: Removal UST Bldg 264	199501
FTL-67	Underground Tanks Old PX Service Station	198512
FTL-68	Weed Control Area, City Airport Oper	199012

Remediation Activities

Past REM/IRA/RA

RA at FTL-01, 09, 12, 13, 14, 16, 17, 18, 19, 22, 30, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 50, 51, 52, 53, 55, 61, 62, 64, 67, 68

IRA at FTL-04

Current REM/IRA/RA

None

Future REM/IRA/RA

See specific site descriptions.

Community Involvement

REGULATORY INVOLVEMENT

Fort Leavenworth operates under a RCRA Permit. The EPA issued the permit in June 2000. Since that time, EPA has formed a regulatory partnership with KDHE regarding issues related to the RCRA Permit. Today, both regulatory agencies continue to work together on regulatory actions.

Fort Leavenworth has always had and still maintains an excellent working relationship with both agencies. This has benefited all parties with close coordination resulting in a team effort to move the program ahead with the goal of protecting human health and the environment.

PUBLIC INVOLVEMENT

Years ago, Fort Leavenworth personnel attempted to establish a Restoration Advisory Board. That effort resulted in less than a dozen people requesting information and only one participating in the meeting where we discussed the purpose of the boards. Public participation at public meetings involving environmental issues over the past few years have been sparsely attended.

KDHE has requested that Fort Leavenworth make a better effort to publicize the availability of reports and decision documents being produced as part of the Restoration Program. The installation has an approved Community Relations Plan dated August 2002 that will guide these efforts.